

# KV-21XRD/21XRTD

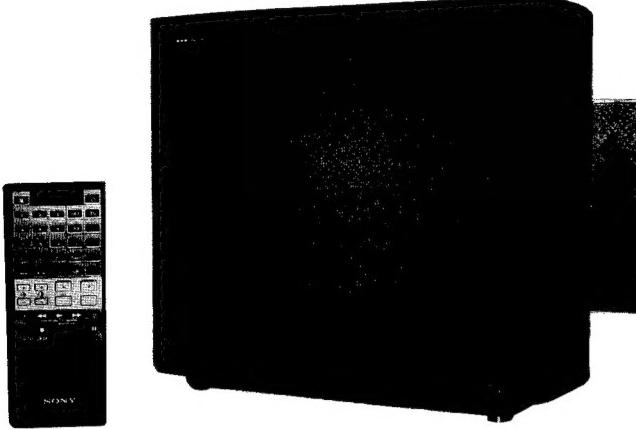
## RM-664

## SERVICE MANUAL

AEP Model

KV-21XRD Chassis No. SCC-784A-A  
KV-21XRTD Chassis No. SCC-784C-A

July, 1986



## SX CHASSIS

### SPECIFICATIONS

Note: The service manual for RM-664 has been issued separately.

Television system	CCIR B, G and H	Outputs	Audio output connector (pin)
Colour system	PAL	Line output	Variable 0–2 Vrms (max.)
Channel coverage	VHF channels A-H2 UHF channels 21-69	Impedance less than 1 kilohm	External speaker terminals (2-pin DIN)
Programming system	30 programmes Automatic programming digital tuning	For 16 ohm speakers	
Picture tube	Approx. 54.5cm (21 inches) 114-degree deflection Trinitron system (Approx. 51 cm picture measured diagonally)	Headphones jack (stereo phone jack)	
Antenna	75-ohm standard antenna socket (BS3041/IEC169-2)	220–240 V ac, 50 Hz	
Speakers	Two speakers Approx. 10 cm dia.	98Wh (Approx. 6W in standby condition)	
Audio output	5W + 5W (with 10% harmonic distortion) 15W + 15W (music power)	Approx. 657 x 453 x 480 mm (w/h/d)	
Input	21-pin connector in accordance with the requirements of CENELEC Standard 21-Pin connector RGB input unconnected	Approx. 26 kg	
Remote control system	Infrared control	Accessory supplied	RM664 Remote Commander (1)
Power requirements	3 V dc	Optional accessory OPK-113 BGS teletext adaptor. (KV-21XRD ONLY)	
Dimensions:	2 batteries IEC designation R03 (size AAA)	Design and specifications are subject to change without notice.	
Weight	Approx. 67 x 18 x 174mm (w/h/d)		
Accessories supplied	Approx. 160g (3.5 oz) incl. batteries IEC designation R03 battery (2)		



MICROFILM

TRINITRON® COLOR TV  
**SONY**®

CTV

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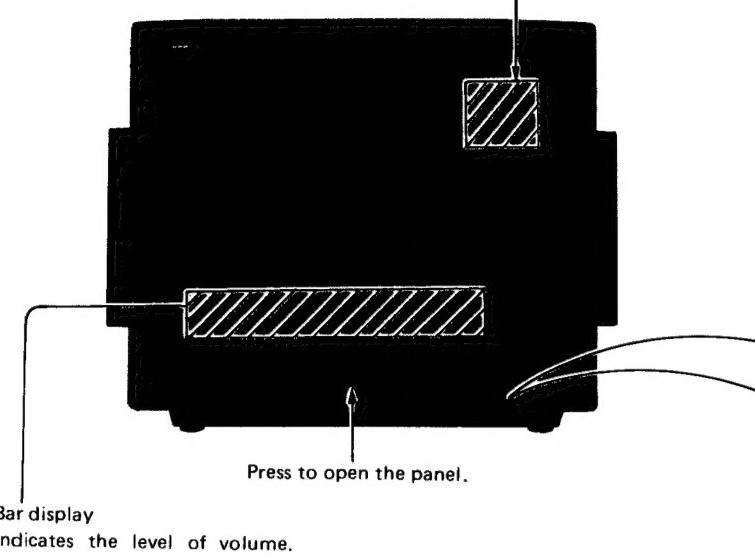
**SAFETY-RELATED COMPONENT WARNING !!**

COMPONENTS IDENTIFIED BY SHADING AND MARK  
⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED  
VIEWS AND IN THE PARTS LIST ARE CRITICAL TO  
SAFE OPERATION. REPLACE THESE COMPONENTS  
WITH SONY PARTS WHOSE PART NUMBERS APPEAR  
AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS  
PUBLISHED BY SONY.

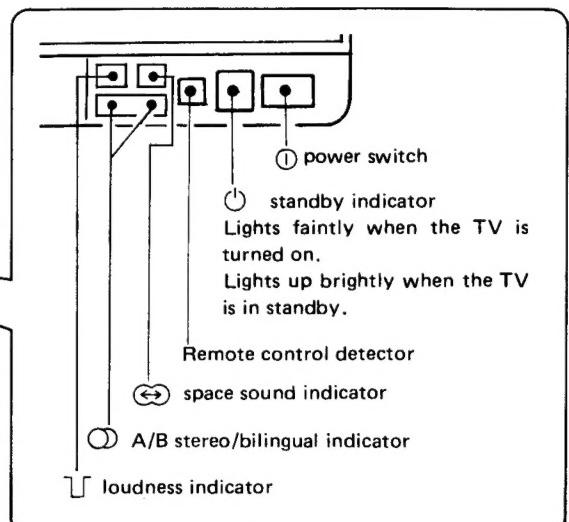
SECTION 1  
GENERAL

## 1-1. FUNCTION OF CONTROLS

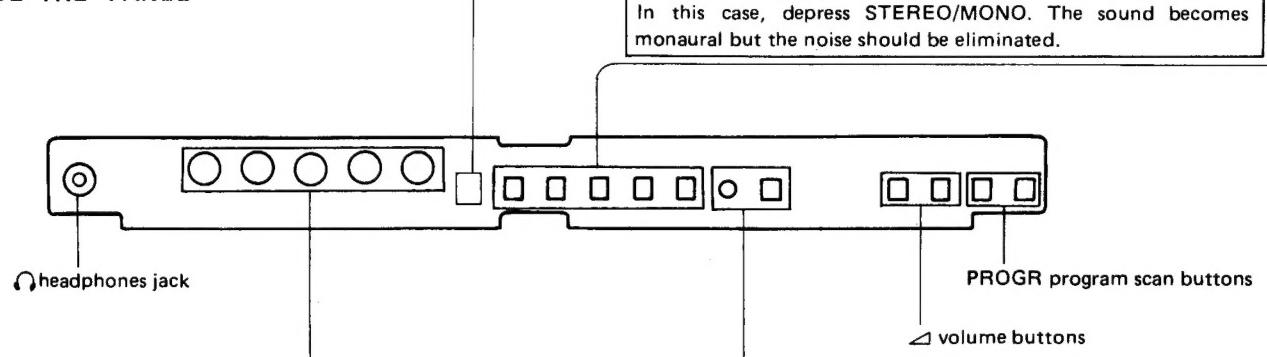
On-screen display  
Indicates programme numbers and  $\leftarrow 1$ ,  $\leftarrow 2$  input modes.



Bar display  
Indicates the level of volume.



## INSIDE THE PANEL



## Use to fine tune a weak channel.

Normally, press AFT ON so that the indicator lights up. The channels are automatically fine tuned for the best possible picture. However, in some cases a better picture may be obtained by fine tuning manually with SEARCH. When SEARCH is pressed, the AFT indicator goes off and the AFT circuit does not function on that channel. (To restore the AFT circuit on this channel, press AFT ON so that the AFT indicator lights up.)

Use to adjust picture and sound	
SHARPNESS	
$\odot$ brightness	
$\triangle$ balance	
$\wedge$ bass tone	
$\wedge$ treble tone	

## CONNECTING OTHER EQUIPMENT

Rear of the TV		Use
L/G/S	left external speaker terminal	Connect to external speakers. The TV speakers will be disconnected.
R/D/D	right external speaker terminal	
R/D/D	right audio output jack	Connect to audio equipment.
L/G/S	left audio output jack	
$\square 1$	21-pin connector (CENELEC standard)	Connect to a VTR, micro computer, etc. The picture of the TV channel being received is always output. The picture of $\square 2$ can be watched while recording a TV program with the VTR connected to $\square 1$ .
$\square 2$	21-pin connector (without RGB input)	Connect to a second VTR. The picture displayed on the screen is always output. The picture coming in through can be recorded on to the VTR connected to $\square 1$ while monitoring the picture.
TT	antenna socket	Connect to the antenna

**VTR operation using the supplied Commander**  
To control an 8mm VTR, set the switch inside the battery compartment to IR. Set to the unmarked position to control other VTR's. Remote operation of the VTR is limited to the features and functions of the VTR. For further details refer to the VTR manual.

## USE TO TUNE IN RECEIVABLE CHANNELS

## To tune in all channels automatically:

- 1 Press PRESET.
  - 2 Press PROGR to select the program position from which tuning is to start.
  - 3 Press AUTO PROGR.
- The channels will be tuned in and memorized in consecutive positions, beginning from the program position selected in step 1.

When tuning has been completed, the set returns to the position where tuning started.

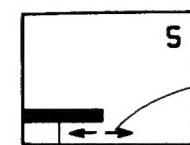
## To tune in a particular channel in any desired program position:

- 1 Press PRESET.
- 2 Press PROGR to select the desired position.
- 3 Press CLEAR.
- 4 Press SEARCH repeatedly until the desired channel appears.
- 5 Repeat steps 2 to 4 for all desired channels.
- 6 Press PRESET again.

## To skip unused program positions:

- 1 Press PRESET.
  - 2 Press PROGR to select the unused position.
  - 3 Press CLEAR.
  - 4 Repeat steps 2 and 3 for all unused positions.
  - 5 Press PRESET again.
- This program position will be skipped whenever PROGR ON the commander is pressed.

## ON-SCREEN DISPLAY WHILE TUNING



## Program position

The band of the channel being tuned will be underlined.

Indicates the approximate location in the band of the channel being tuned in. The band lengthens for a higher-frequency channel and shortens for a lower-frequency channel.

## 1-2. VIEWING TELETEXT

The numbers and symbols on the Commander for the teletext mode are in green.

### OPERATION

- 1 Select the TV channel for the desired teletext service.
- 2 Press TEXT/MIX to display the teletext service.

To return to the TV mode, press TV.

To display the index page  
Press INDEX.

To display the desired teletext page  
Key in the three digits for the desired page using the number buttons.

To request a higher-numbered or lower-numbered page  
Press PAGE + or -.

To superimpose the teletext page on the TV picture  
Press TEXT/MIX.

To hold a teletext page so that it cannot be updated  
Press HOLD. To resume normal teletext reception, press TEXT/MIX.

To enlarge the teletext display  
Press / / . Press once to enlarge the upper half of the display; press twice to enlarge the lower half of the display; press three times to return to the normal display.

To reveal the answers to a quiz  
Press REVEAL.

To adjust the brightness of the teletext display  
Press .

To display the teletext service of another channel

- 1 Press TV to return to the TV mode.
- 2 Select the desired TV channel.
- 3 Press TEXT/MIX.

To have a requested page broadcast at a predetermined time

- 1 Request time coded page
- 2 Press TP ON. The time display in the top right hand corner of the screen starts flashing.
- 3 Enter your request time with the number buttons, using four digits. For example, 07:30.

To cancel the request, press TP OFF.

To watch a TV program while waiting for the requested page to be displayed

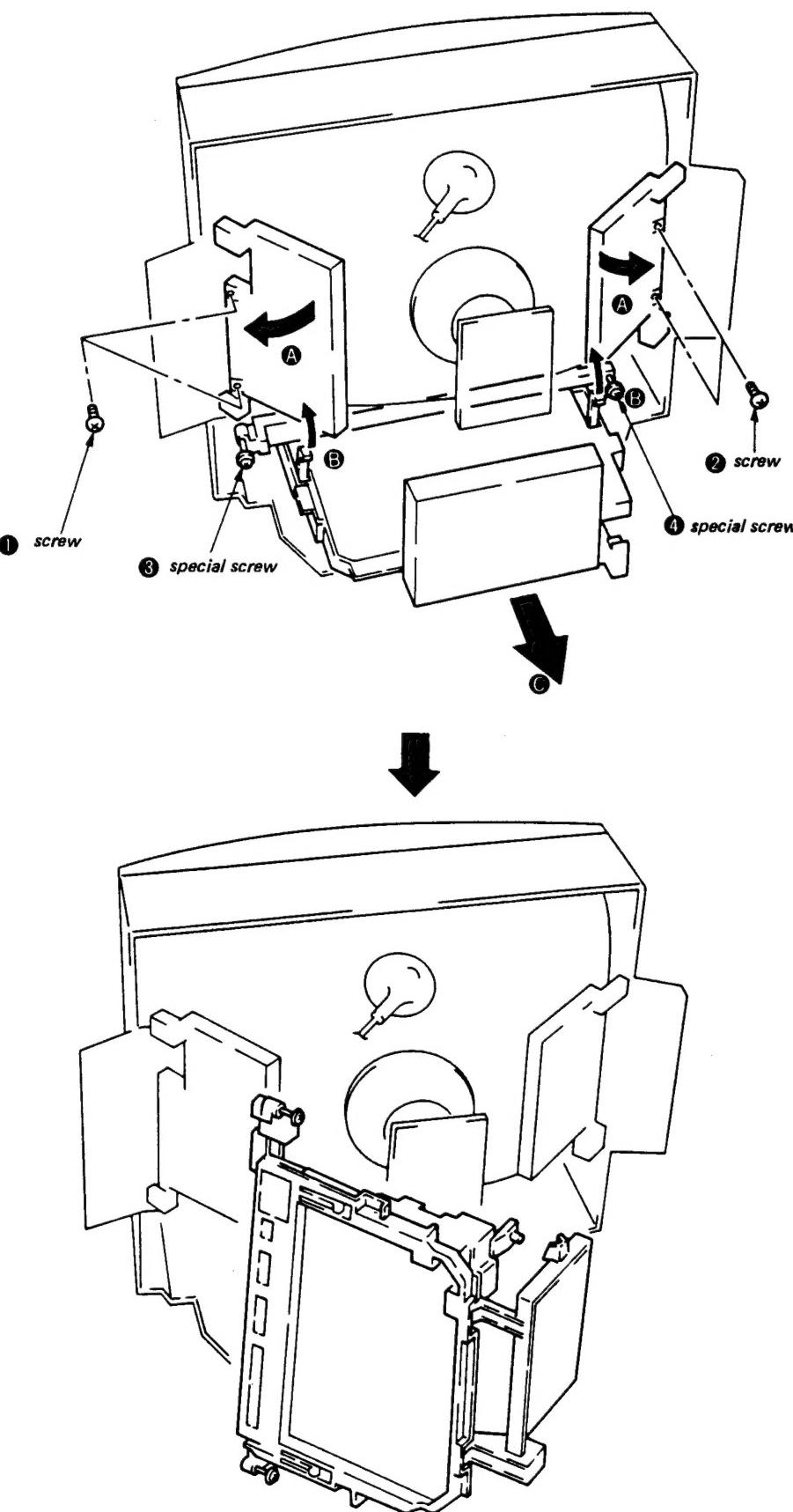
- 1 Request new page.
- 2 Press TEXT CL to display the TV program. The TV channel cannot be changed.

When the requested page has been captured by the adaptor, the page number is indicated in the top left hand corner of the screen. To display this page, press TEXT/MIX.

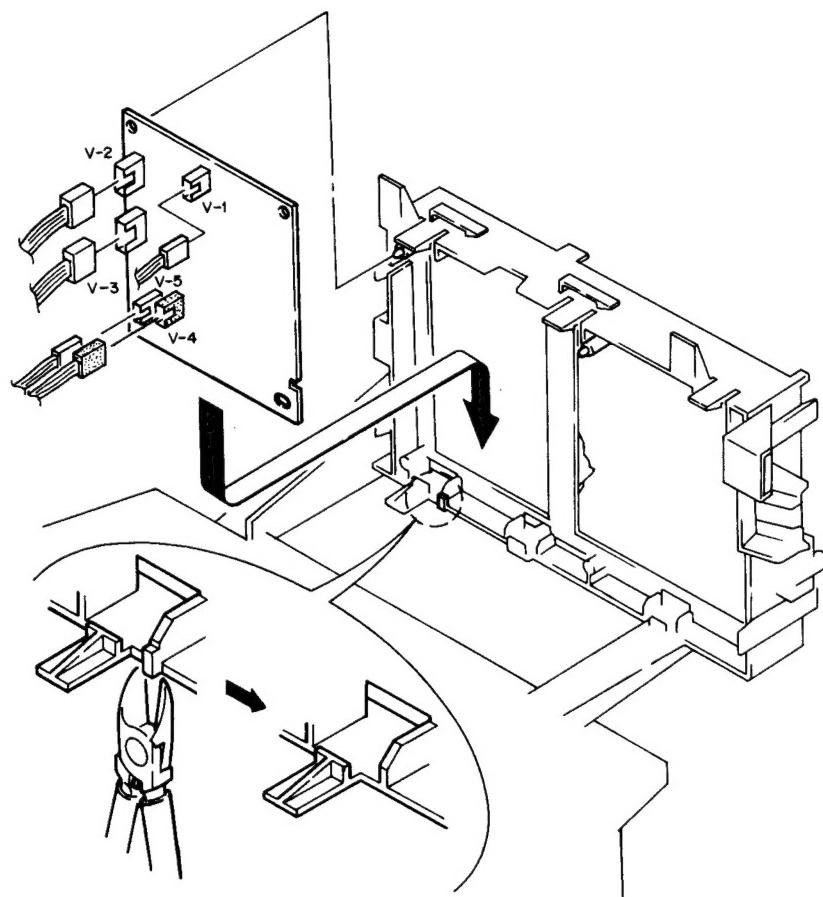
### Notes

To prevent misoperation, keep AFT ON switched on in the teletext mode.

## 2-1. SERVICE POSITION

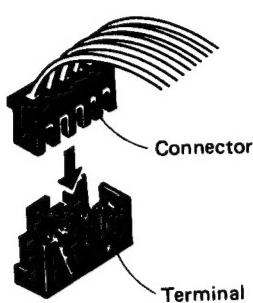


2-2. OPK-113 BGS ATTACHING (KV-21XRD ONLY)



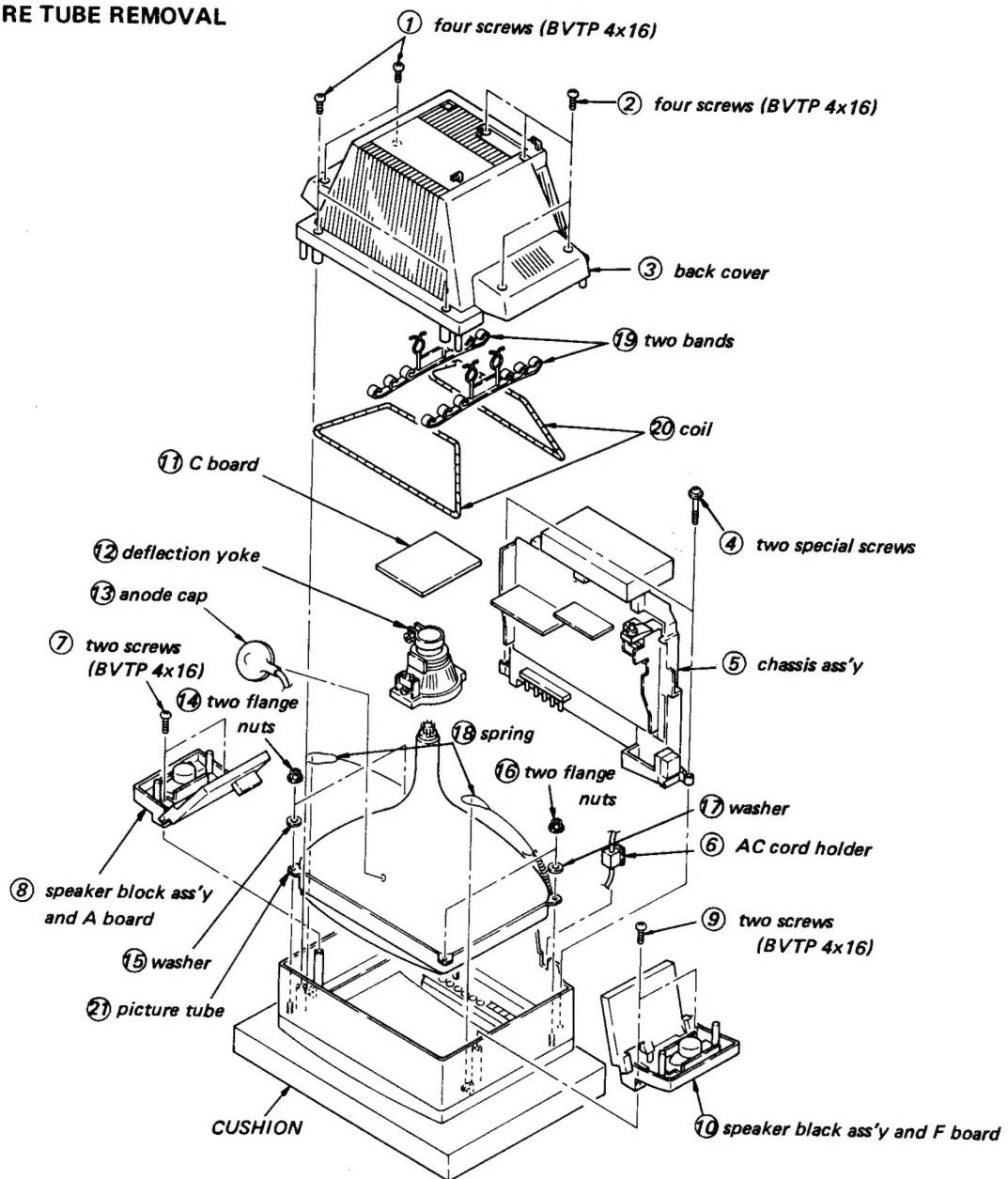
Connect to the same number terminal as the connector.

TV side	OPK side
D-15	V-1
D-9	V-2
D-2	V-3
D-14	V-4
D-21	V-5



## SECTION 3 DISASSEMBLY

### 3-1 PICTURE TUBE REMOVAL



#### • ANODE CAP REMOVAL

- ① Turn up one side of the rubber cap in the direction indicated by the arrow (a).
- 
- ② Using a thumb, pull up the rubber cap firmly in the direction indicated by the arrow (b).
- 
- ③ When one side of the rubber cap is separated from the anode button, the anode cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow (c). Anode button is labeled at the bottom."/>

**SECTION 4****SET-UP ADJUSTMENTS**

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switch should be set as follows unless otherwise noted:

**PICTURE** control ..... 80% (or Normal by Commander)

**BRIGHTNESS** control ..... 50%

**4-1. BEAM LANDING**

- Input a raster signal with the pattern generator.  
**PICTURE** } normal  
**BRT**
- Turn the raster signal of the pattern generator to red.
- Move the deflection yoke backward, and adjust with the purity control so that red is in the center and blue and green are at the sides, evenly. (Fig. 4-1, Fig. 4-2)
- Move the deflection yoke forward, and adjust so that the entire screen becomes red.
- Switch over the raster signal to blue and green and confirm the condition.
- When landing at the corners is not right, adjust by using the magnet. (Fig. 4-3)
- When the position of the deflection yoke is determined, tighten it with a deflection yoke mounting screw.

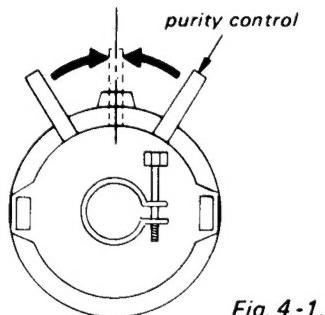


Fig. 4-1.

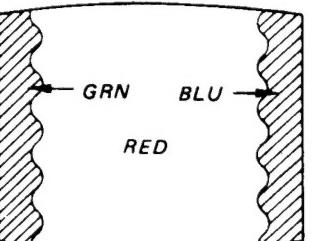


Fig. 4-2.

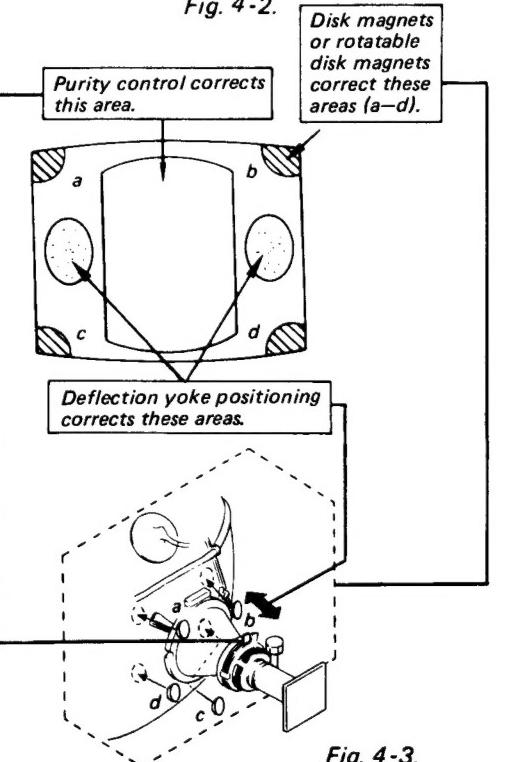
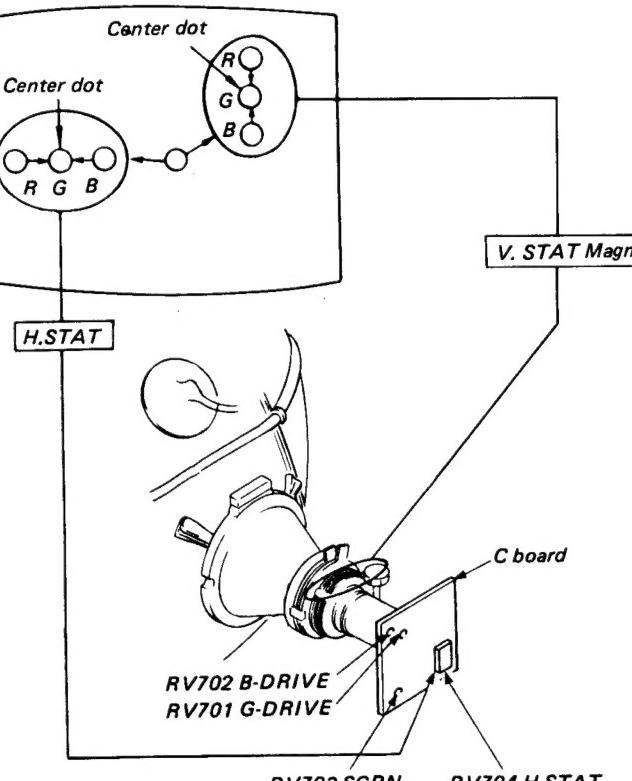


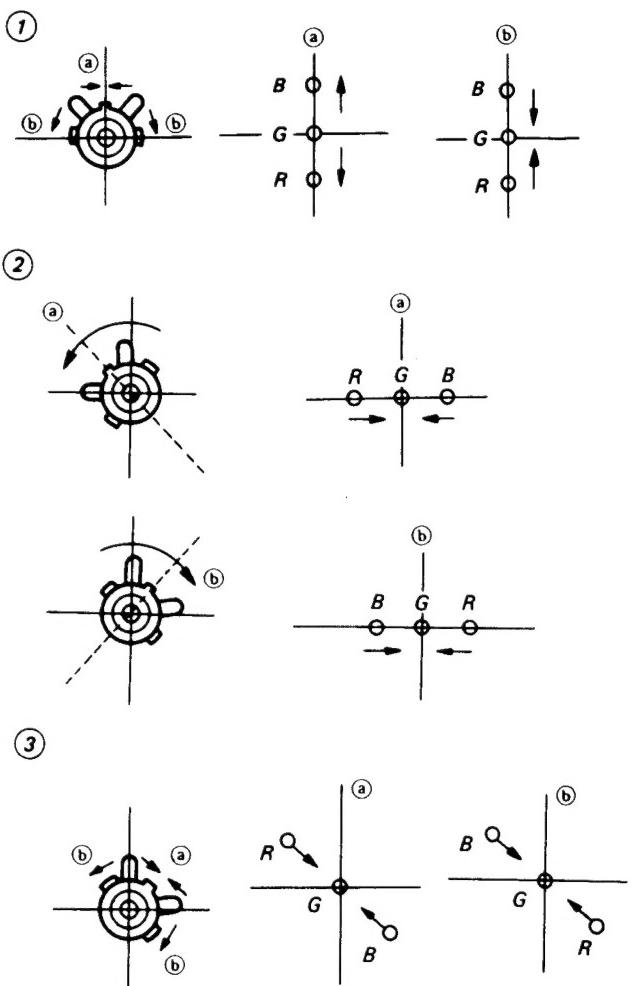
Fig. 4-3.

**4-2. CONVERGENCE****Preparation:**

- Before starting, perform FOCUS, H. SIZE, V. SIZE and V. LIN adjustments.
- Set BRIGHTNESS control to fully counterclockwise.
- Feed in the dot pattern.

**(1) Horizontal and Vertical Static Convergence**

- When the V. STAT magnet is moved in the direction of arrow (a) and (b), Red, Green and Blue dots move as shown below.

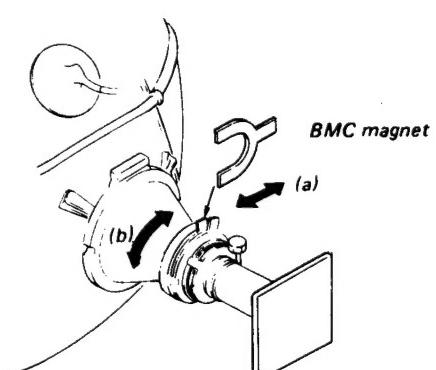


If blue dot does not coincide with red and green dots, perform following steps.

Move BMC magnet (a) to correct insufficient H. static convergence.

Rotate BMC magnet (b) to correct insufficient V. static convergence.

In either case, repeat Beam Landing Adjustment.

**(2) Dynamic Convergence****Preparation:**

- Before starting, perform Static Convergence.

1. Loosen deflection yoke.

2. Remove deflection

**4-4. WHITE BALANCE****Auto Cut Off****G2 ADJ.**

1. Receive

2. Set PIC,

3. Connect

R,G,B ca

4. Adjust C

faintly.

**W/B ADJ.**

1. Receive

2. Set: PIC

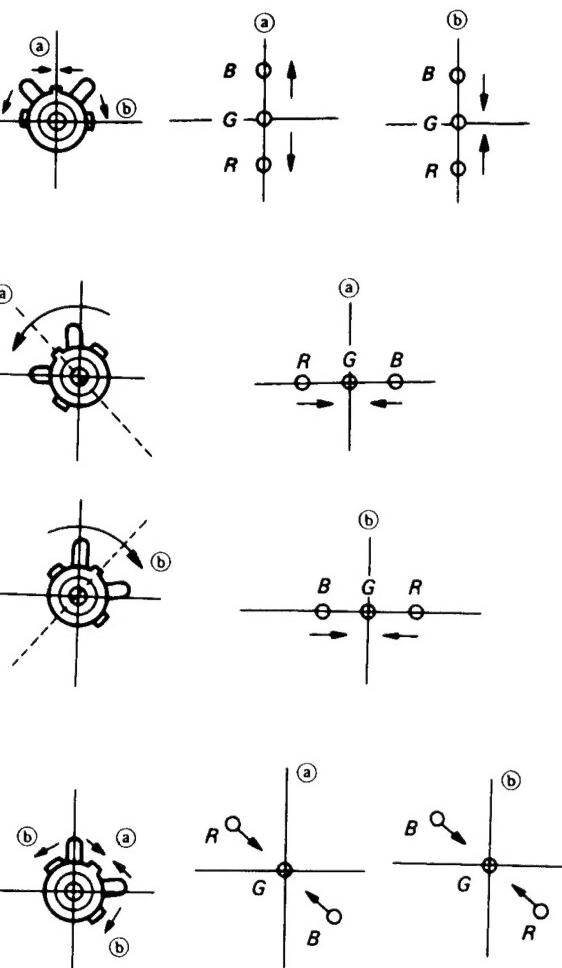
CO

## (2) Dynamic Convergence Adjustment

### Preparation:

- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.
- 1. Loosen deflection yoke screw.
- 2. Remove deflection yoke spacers.

When the V. STAT magnet is moved in the direction of arrow (a) and (b), Red, Green and Blue dots move as shown below.

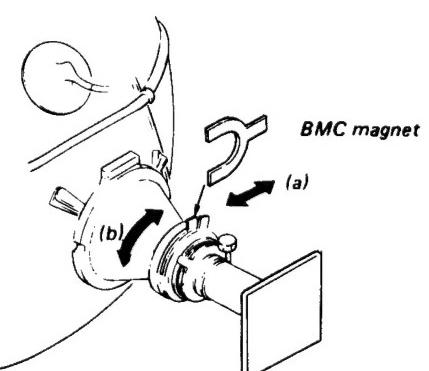


blue dot does not coincide with red and green dots, perform following steps.

Move BMC magnet (a) to correct insufficient H. static convergence.

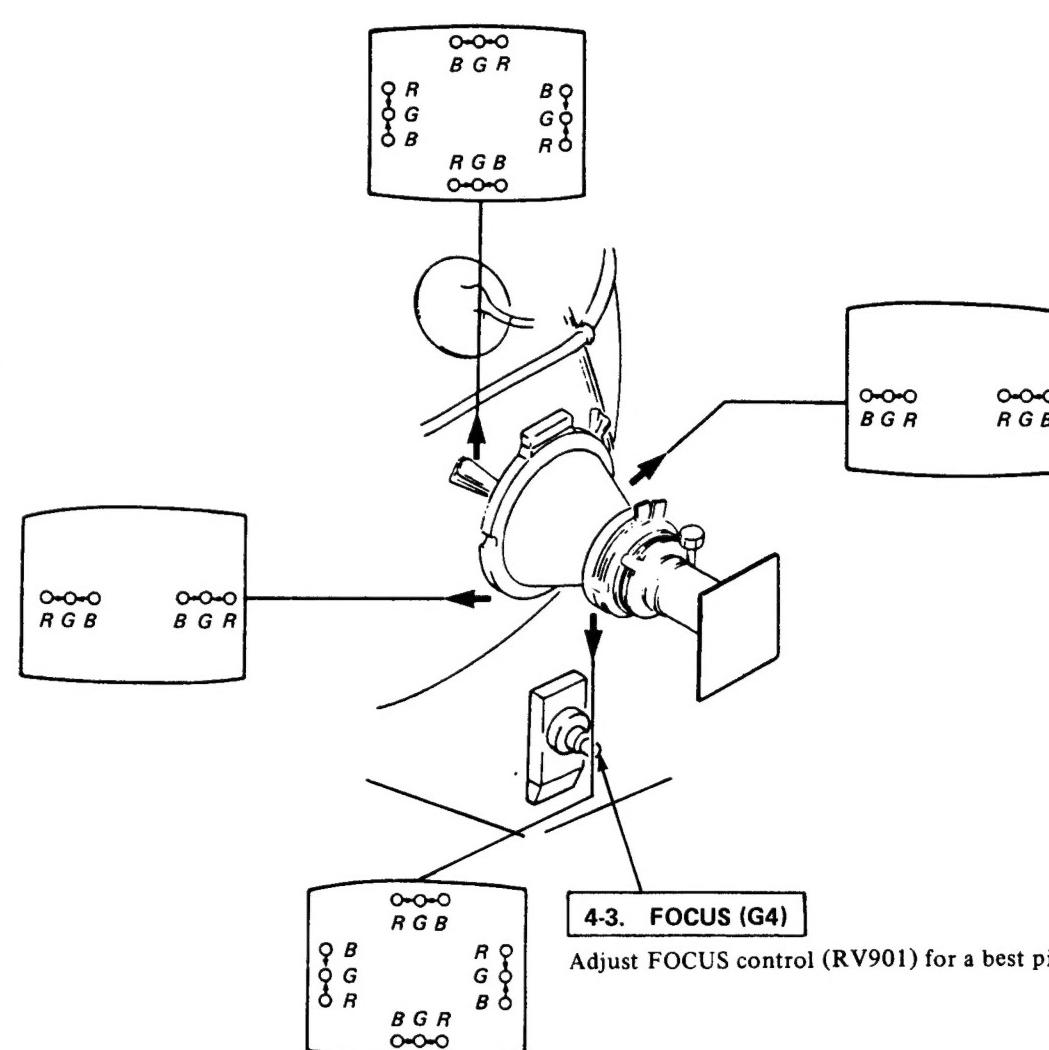
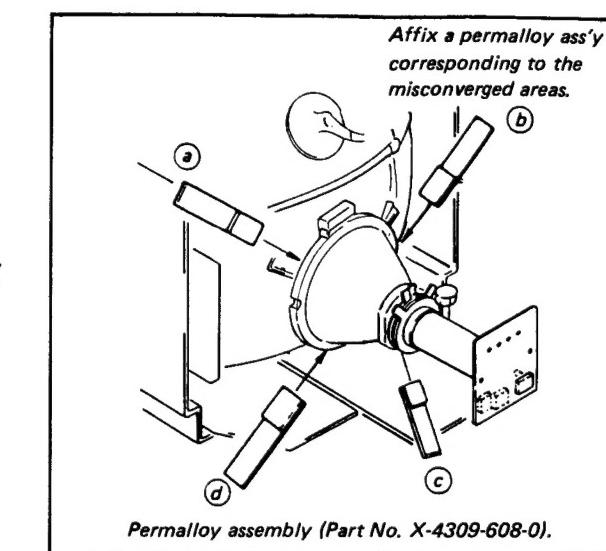
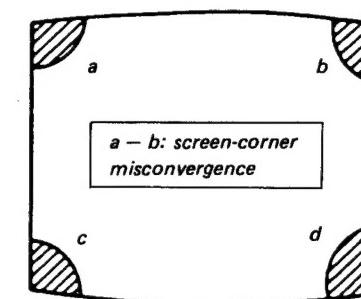
Rotate BMC magnet (b) to correct insufficient V. static convergence.

In either case, repeat Beam Landing Adjustment.



## (3) Screen-corner Convergence

3. Move the deflection yoke for best convergence as shown below.
4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.



## 4-4. WHITE BALANCE

### Auto Cut Off White Balance Adjustment.

#### G2 ADJ.

1. Receive a dot signal.
2. Set PIC, BRT VR's to minimum.
3. Connect external power supply 170V DC to R,G,B cathode.
4. Adjust G2 VR to the point where retrace glows faintly.

#### W/B ADJ.

1. Receive color bar.
2. Set: PIC, BRT: MAX  
COL : MIN

### 3. Adjust B,G DRIVE VR's to get white balance.

#### 4. Set: PIC, COL: MIN

BRT : CENTER

Adjust SUB BRT. to the point where the arrow indicates.

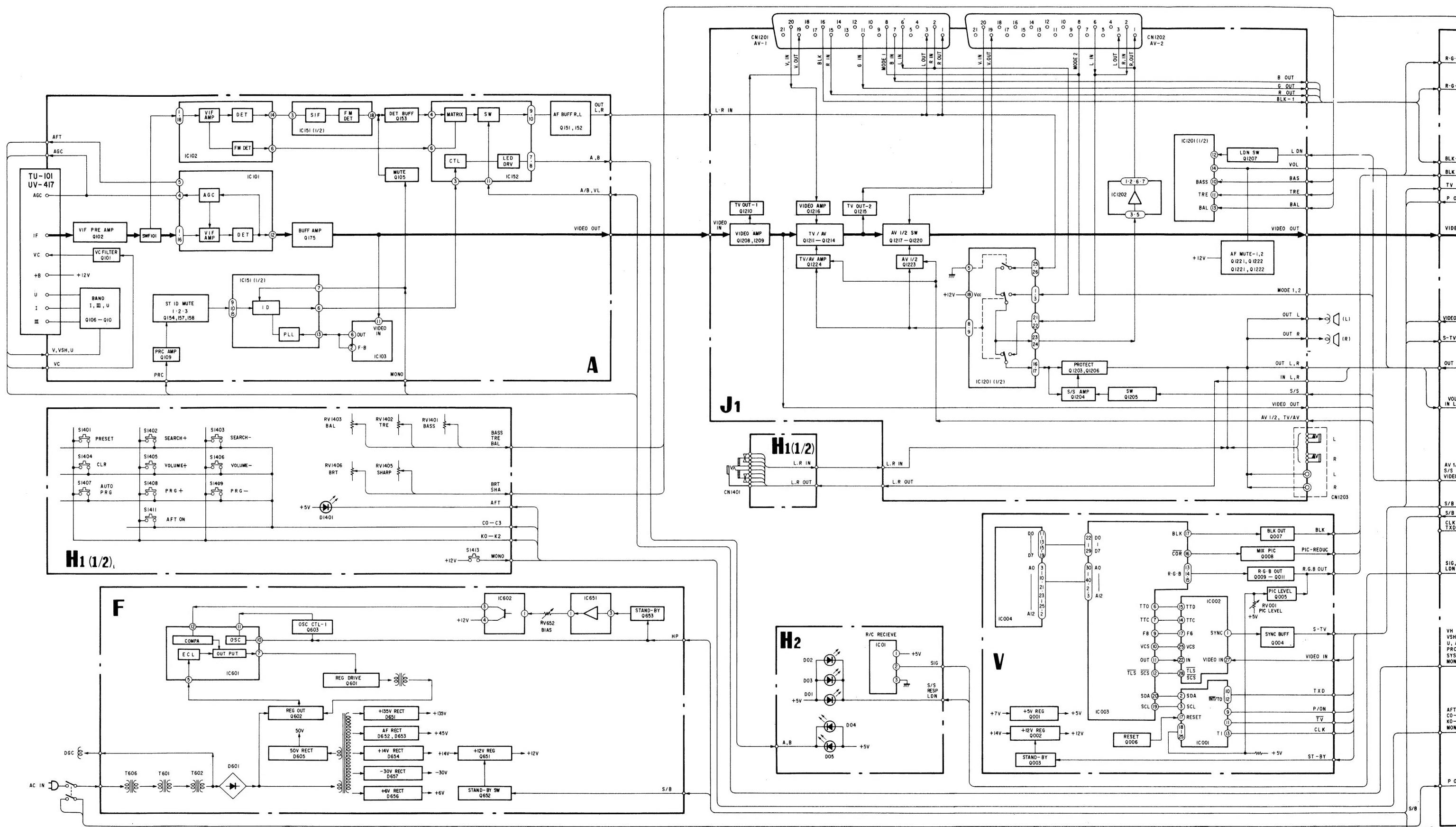
### SIMPLE ADJUSTMENT METHOD

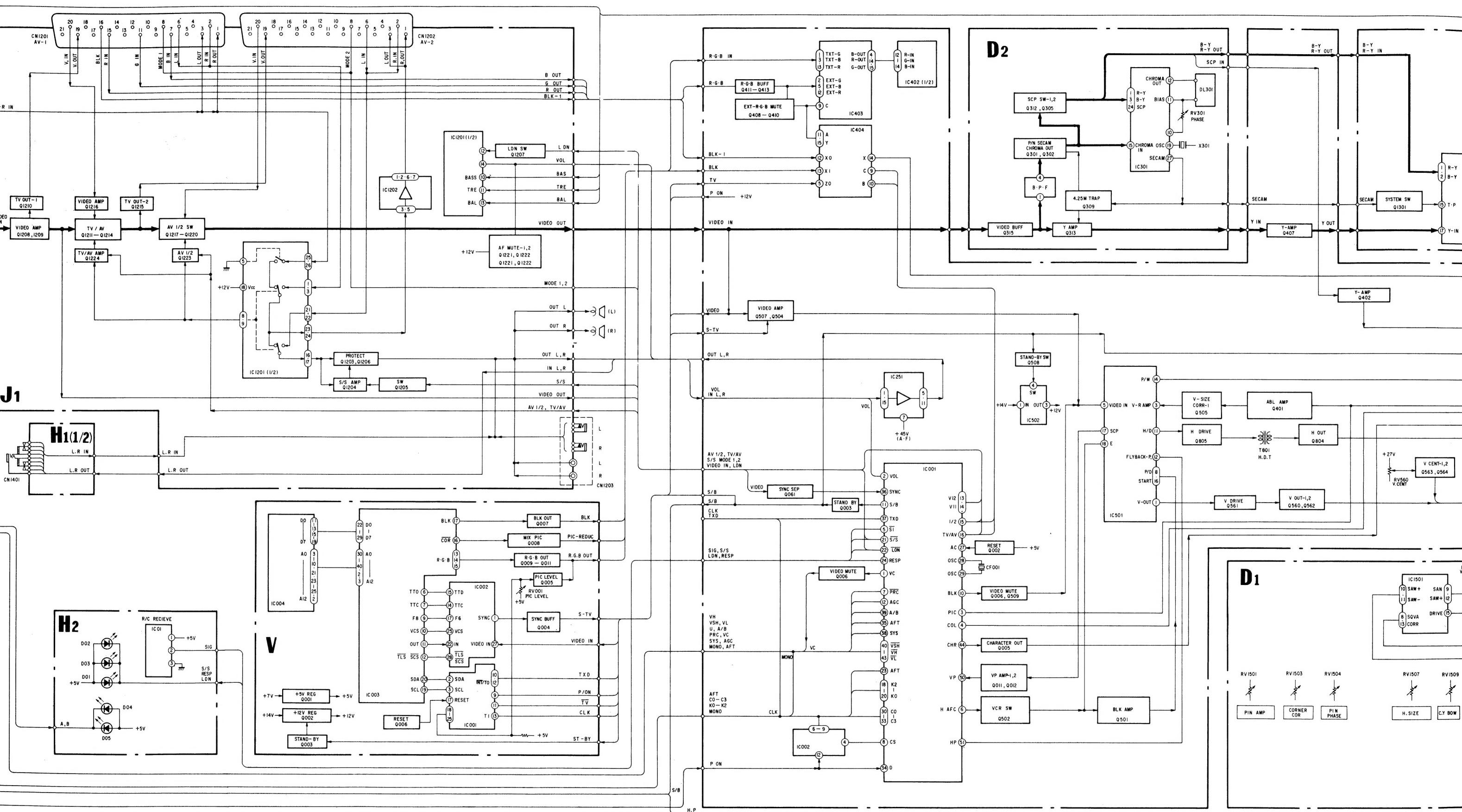
1. Receive an air signal.
2. Set PIC, BRT, COL to MAX.
3. Set B,G DRIVE VR's to mechanical center.
4. Turn G2 VR fully to the left and right and adjust to the center of the range over which color does not change.

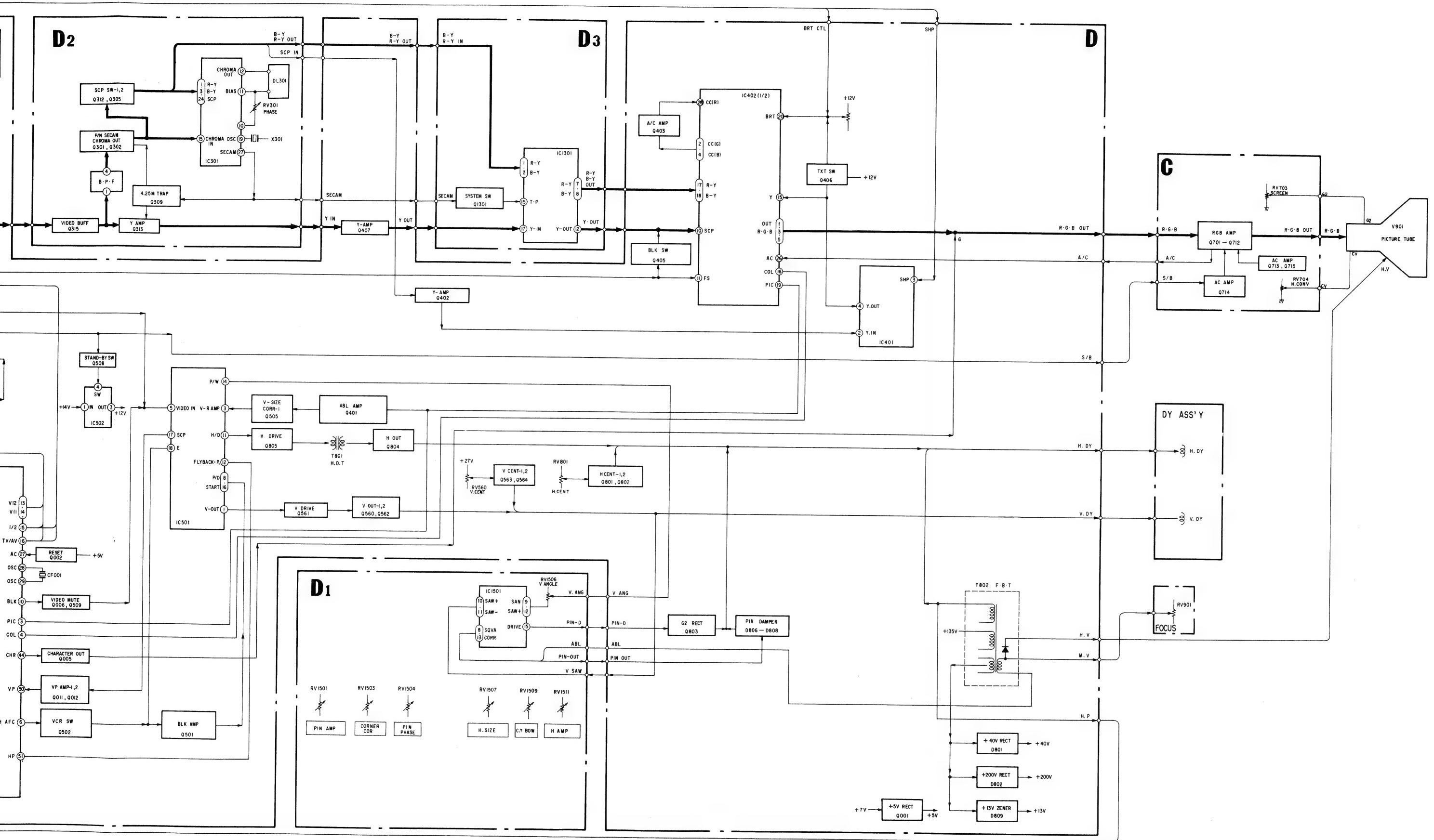


## SECTION 5

### BLOCK DIAGRAM



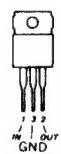




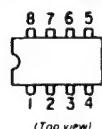
## SECTION 6

### SEMICONDUCTORS

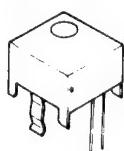
**AN78M12R**



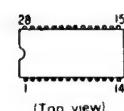
BA4558  
HA17558  
NJM4558D  
 $\mu$ PC4558C



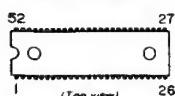
**BX1387**



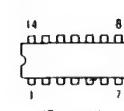
**CX20199**  
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SAA5230  
TC5564PL-15  
TC5565PL-15  
TDA3505  
TDA3505-V7  
TDA4555



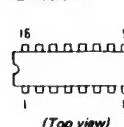
**M50436-511SP**  
**M50436-515SP**



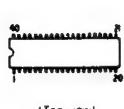
**M58655P**  
TDA4944  
 $\mu$ PC1394C



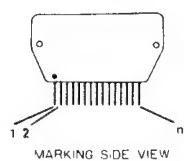
**MC74HC4053N**  
TC74HC4053P  
TDA1082  
TDA3541



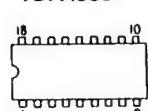
**SAA5240A**



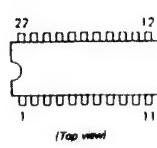
**STK4362**



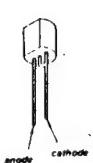
**TDA2546A**  
TDA2579  
TDA2595  
TDA4560  
TDA4565



**TDA4940**



**$\mu$ PC574J**



**2SA1091**  
2SA933S  
2SC1740  
2SC2551  
BF485-AMMO  
JA101  
JC501



**2SA1175**  
2SC2785



**2SA1220A**  
2SC2611  
2SC2688  
2SC2690A



**2SB734**  
2SC2958  
2SC2959  
2SD773  
2SD774



**2SB740**  
2SC1475  
2SC3504  
2SD788  
2SD789



**2SC2026**



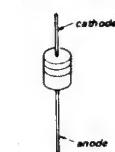
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2SD1497-06



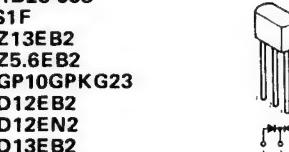
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**1SS119**  
1SS133  
1SS148



**1N4148**  
1S1555  
ERD28-06S  
ES1F  
HZ13EB2  
HZ5.6EB2  
RGP10GPKG23  
RD12EB2  
RD12EN2  
RD13EB2  
RD3.6EB2  
RD3.9EN1  
RD3.9EN2  
RD39EB2  
RD5.1EN2  
RD5.6EB2  
RD5.6EN1  
RD5.6EN2  
RD5.6EN3  
RD6.2EN1  
RD6.2EN2  
RD6.8EN1  
RD7.5EN1  
RD7.5EN2  
HZ3.6EB2  
HZ39EB2



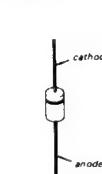
**ERC26-15S**  
GH3F  
V19E



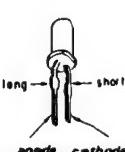
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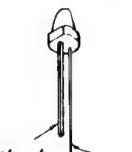
**EQB01-13**



**TLR124**



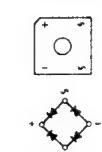
**MC921**



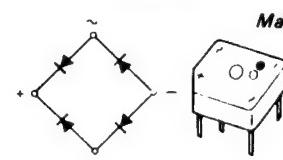
**MC931**



**RB406NH**



**Marking**



## SECTION 7 EXPLODED VIEWS

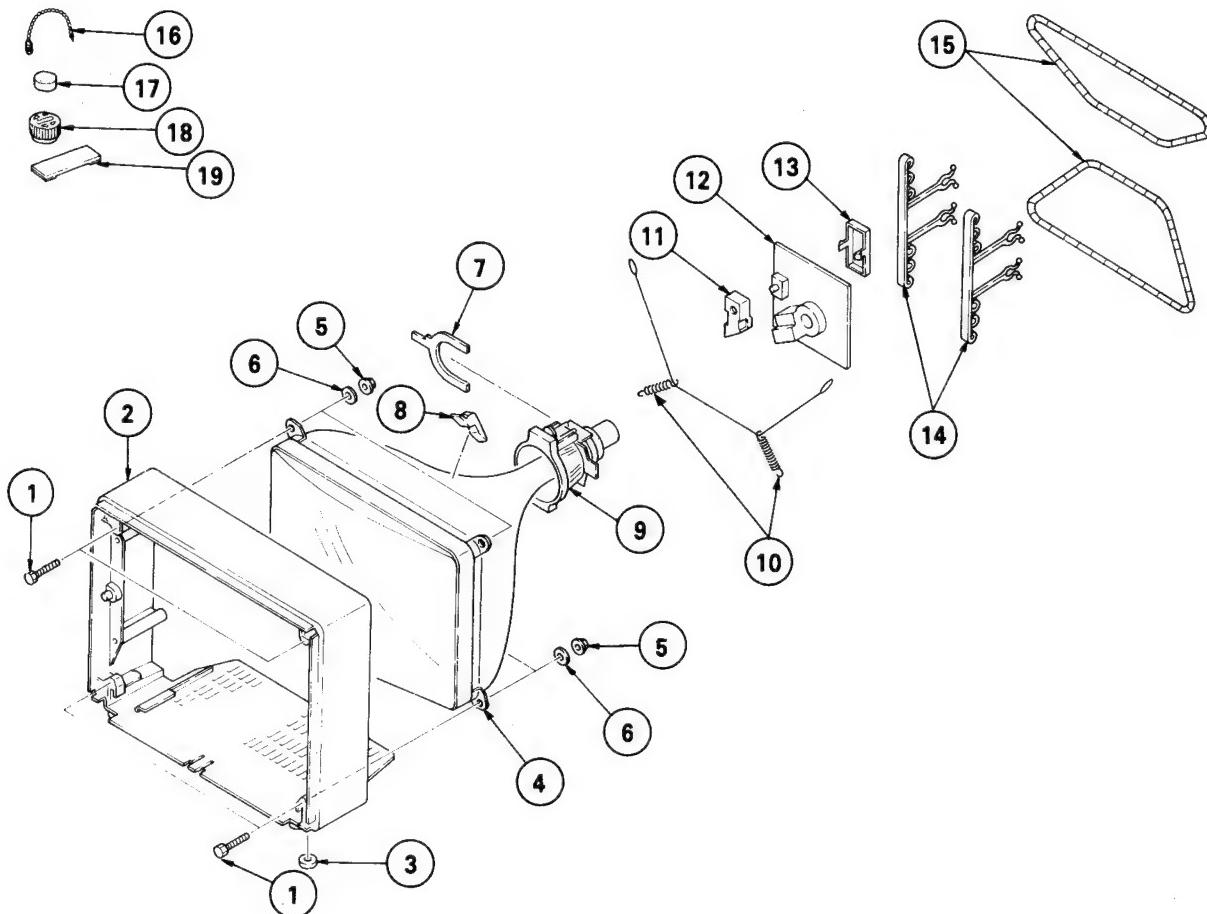
### NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

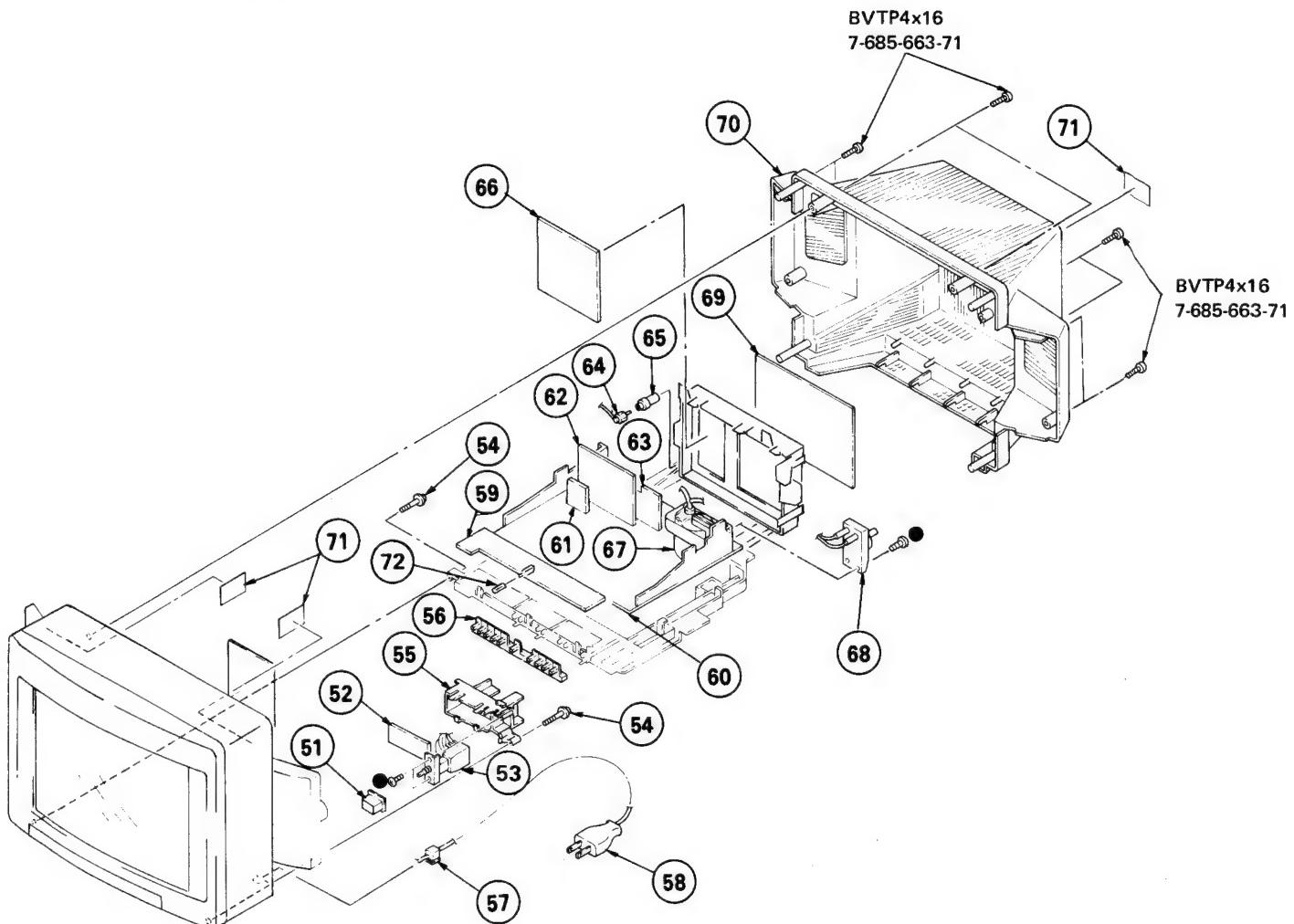
### 7-1. PICTURE TUBE



No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
1	3-703-025-12	BOLT M5, HEXAGON-HEAD		10	4-369-318-00	SPRING, TENSION	
2	4-380-631-01	CABINET (FOR GRAY)		11	*4-379-167-01	COVER (MAIN), CV	
	4-380-631-11	CABINET (FOR IVORY)		12	*A-1330-686-A	C BOARD, COMPLETE	
3	4-809-913-XX	FOOT, F		13	*4-379-160-01	COVER (REAR LID), CV	
4	$\Delta$ 8-736-954-05	CRT (A51JKQ60X)		14	*4-380-620-01	BAND, DEGAUSS COIL	
5	4-306-034-00	FLANGE NUT, (B) 5MM		15	$\Delta$ 1-426-280-11	COIL, DEMAGNETIZATION	
6	4-373-615-02	WASHER, CRT POSITIONING		16	4-308-870-00	CLIP, LEAD WIRE	
7	1-452-277-00	MAGNET, BMC		17	1-452-032-00	MAGNET, DISK; 10MM $\phi$	
8	3-703-003-00	SPACER, DY		18	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM $\phi$	
9	$\Delta$ 1-451-290-11	DEFLECTION YOKE (SY-153F)		19	X-4309-608-0	PERMALLOY ASSY, CONVERGENCE	

**7-2. REAR COVER**

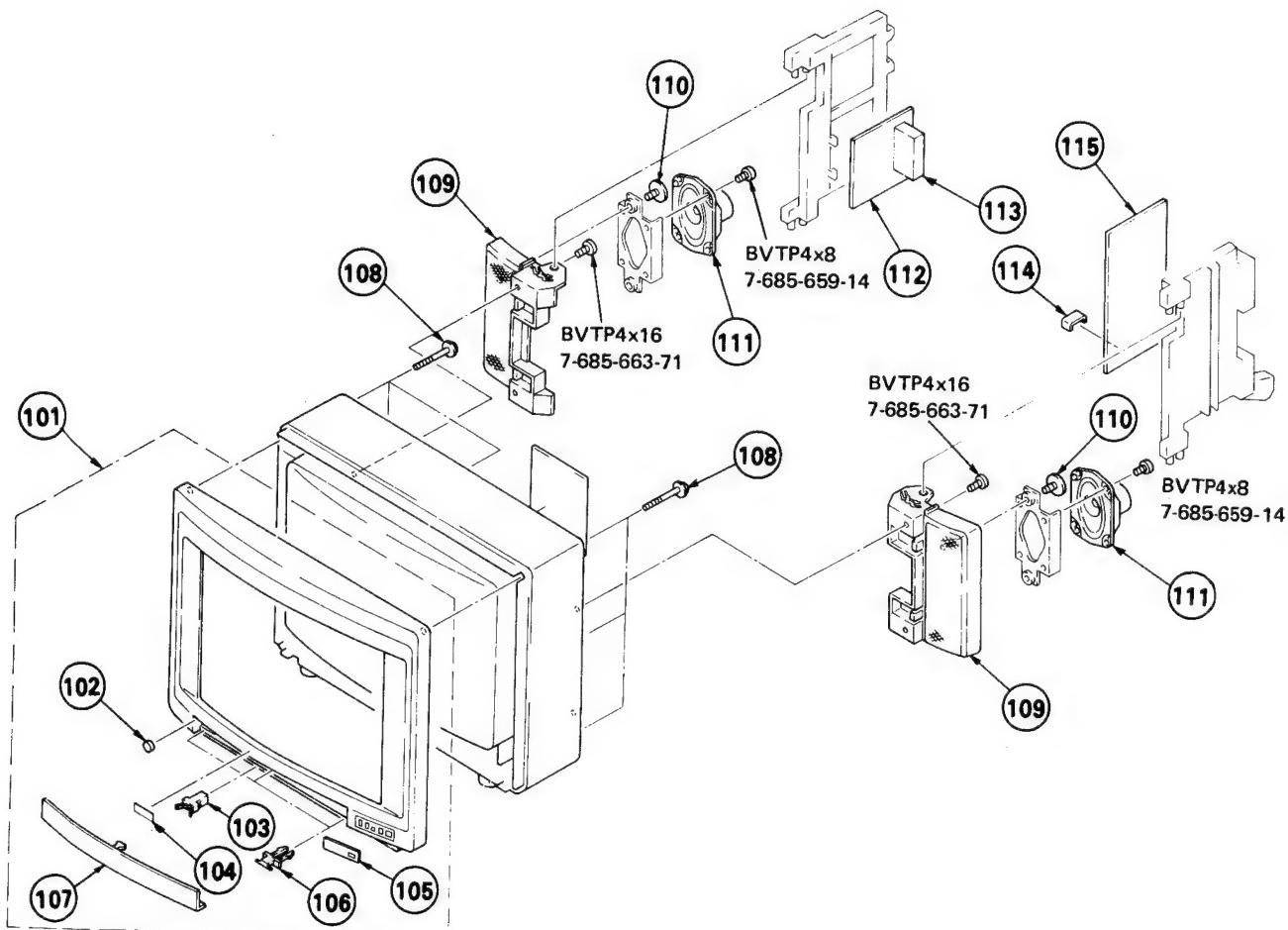
● : BVTP3x12      7-685-648-71



No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
51	4-380-624-01	BUTTON, POWER		63	*1-617-753-11	D1 BOARD	
52	*1-617-746-11	H2 BOARD		64	*1-558-539-11	CABLE, P-P	
53	△1-554-762-21	SWITCH, PUSH (AC POWER)(1 KEY)		65	△1-563-204-11	SOCKET, ANTENNA (PAL/SECAM)	
54	4-319-520-00	SCREW, SPECIAL (+PW4X30)		66	*A-1325-023-A	V BOARD, COMPLETE (KV-21XRTD ONLY)	
55	*4-380-623-01	BRACKET, POWER SWITCH		67	△1-439-387-21	TRANSFORMER ASSY, FLYBACK	
56	4-380-644-01	BUTTON (COMPLETE), MULTI		68	△1-237-286-11	RESISTOR ASSY, HIGH-VOLTAGE	
57	△4-022-115-01	HOLDER, AC CORD		69	*A-1371-170-A	J1 BOARD, COMPLETE	
58	△1-551-270-31	CORD, POWER		70	4-380-636-01	COVER, REAR	
59	*1-617-747-11	H1 BOARD		71	*4-380-684-01	LABEL (B), COMBINATION (KV-21XRTD)	
60	*A-1345-602-A	D BOARD, COMPLETE		72	*4-382-041-01	LABEL (B), COMBINATION (KV-21XRD)	
61	*1-618-128-11	D3 BOARD			4-376-524-01	BUTTON, STEREO/MONO	
62	*A-1345-612-A	D2 BOARD, COMPLETE					

The components identified by shading and mark △ are critical for safety. Replace only with part number specified.

**7-3. BEZEL ASSY**



No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
101	X-4374-151-1	BEZEL ASSY (KV-21XRD)		102-107	108	4-319-520-00	SCREW, SPECIAL (+PW4X30)
	X-4374-151-2	BEZEL ASSY (KV-21XRTD)		102-107	109	X-4380-602-1	PANEL ASSY, SPEAKER
102	*4-314-871-00	CUSHION			110	4-314-843-00	SCREW, TAPPING, +4X12
103	4-374-714-01	CATCH, PUSH			111	1-503-642-11	SPEAKER
104	*4-374-115-01	EMBLEM, SONY			112	*A-1296-140-A	A BOARD, COMPLETE
105	*4-380-653-01	WINDOW, ORNAMENTAL		113	A.1-463-523-11	TUNER, ET (UHF/VHF) (UV417)	
106	3-662-365-00	SHAFT (S), DOOR		114	*4-375-709-01	COVER, FUSE	
107	4-380-626-01	DOOR (KV-21XRD)		115	*A-1245-330-A	F BOARD, COMPLETE	
	4-380-626-11	DOOR (KV-21XRTD)					

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

SECTION 8  
ELECTRICAL PARTS LIST

F

NOTE:

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

• Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

When indicating parts by reference number, please include the board name.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

CAPACITORS                    RESISTORS                    COILS  
 • MF :  $\mu$ F, PF :  $\mu$ F     • All resistors are in ohms     MMH . mH, UH :  $\mu$ H  
 • F : nonflammable

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark	
<b>*A-1245-330-A</b> F BOARD, COMPLETE				C669	1-102-038-00	CERAMIC	0.001MF	
*****				C670	1-101-004-00	CERAMIC	0.01MF	
<u>CAPACITOR</u>								
C601	A.1-117-121-51	PAPER	0.22MF	20%	250V	D601	A.8-719-503-06	DIODE S3WB60Z
C602	A.1-117-121-51	PAPER	0.22MF	20%	250V	D602	8-719-100-65	DIODE RD12E-B2
C603	1-162-578-00	CERAMIC	0.0047MF	20%	400V	D603	8-719-815-55	DIODE 1S1555
C604	1-162-578-00	CERAMIC	0.0047MF	20%	400V	D604	8-759-157-40	IC UPC574J
C605	A.1-162-578-51	CERAMIC	0.0047MF	20%	400V	D605	8-719-901-93	DIODE V19E
C606	A.1-162-578-51	CERAMIC	0.0047MF	20%	400V	D606	8-719-815-55	DIODE 1S1555
C607	A.1-161-964-61	CERAMIC	0.0047MF	250V		D607	8-719-815-55	DIODE 1S1555
C608	A.1-161-964-61	CERAMIC	0.0047MF	250V		D608	8-719-815-55	DIODE 1S1555
C609	A.1-161-964-61	CERAMIC	0.0047MF	250V		D609	8-719-305-15	DIODE GH3F
C610	1-125-318-00	ELECT(BLOCK)	220MF	20%	400V	D651	8-719-928-08	DIODE ERD28-08S
C611	1-110-175-81	MYLAR	0.1MF	10%	100V	D652	8-719-901-93	DIODE V19E
C612	1-106-180-00	MYLAR	0.0022MF	5%	50V	D653	8-719-901-93	DIODE V19E
C613	1-123-356-00	ELECT	10MF	20%	16V	D654	8-719-300-59	DIODE CTU-12S
C614	1-123-356-00	ELECT	10MF	20%	16V	D655	8-719-000-12	DIODE MC931
C615	1-102-106-00	CERAMIC	100PF	10%	50V	D656	8-719-300-59	DIODE CTU-12S
C616	1-123-369-00	ELECT	4.7MF	20%	25V	D657	8-719-901-93	DIODE V19E
C617	1-110-186-81	MYLAR	0.0047MF	10%	400V	D658	8-719-102-74	DIODE RD6.2E-N2
C618	1-102-030-00	CERAMIC	330PF	10%	500V	D659	8-719-102-70	DIODE RD5.6E-N1
C619	1-110-182-81	MYLAR	0.022MF	10%	250V	D660	8-719-815-55	DIODE 1S1555
C620	1-123-332-00	ELECT	47MF	20%	16V	D661	8-719-815-55	DIODE 1S1555
C621	1-136-065-00	FILM	0.0027MF	3%	2KV	D662	8-719-901-93	DIODE V19E
C622	1-123-385-00	ELECT	22MF	20%	100V	D663	8-719-102-74	DIODE RD6.2E-N2
C623	1-161-973-00	CERAMIC	220PF	10%	400V	D664	8-719-100-65	DIODE RD12E-B2
C624	1-161-973-00	CERAMIC	220PF	10%	400V	<u>CONNECTOR</u>		
C625	1-123-380-00	ELECT	1MF	20%	50V	F1	*1-506-348-XX	3P PLUG (L)
C627	1-123-380-00	ELECT	1MF	20%	50V	F2	*1-508-765-00	3P PLUG (M)
C628	1-106-180-00	MYLAR	0.0022MF	5%	50V	F3	*1-508-786-00	2P PLUG (M)
C632	1-102-038-00	CERAMIC	0.001MF		500V	F4	*1-508-765-00	3P PLUG (M)
C633	A.1-117-121-51	PAPER	0.22MF	20%	250V	F6	*1-564-880-31	PLUG, CONNECTOR 3P
C634	1-110-175-81	MYLAR	0.1MF	10%	100V	F7	*1-564-883-11	PLUG, CONNECTOR 6P
C635	A.1-117-121-51	PAPER	0.22MF	20%	250V	<u>FUSE</u>		
C651	1-162-115-00	CERAMIC	330PF	10%	2KV	F601	A.1-532-350-11	FUSE, TIME-LAG 4A/250V
C652	1-124-347-00	ELECT	100MF	20%	160V		1-533-149-00	HOLDER, FUSE; F601
C653	1-123-364-00	ELECT	1000MF	20%	50V	<u>IC</u>		
C654	1-123-606-00	ELECT	1000MF	20%	25V	IC601	8-759-100-75	IC UPC1394C
C655	1-123-606-00	ELECT	1000MF	20%	25V	IC602	A.8-719-800-82	DIODE TLP581
C656	1-102-038-00	CERAMIC	0.001MF		500V	IC651	8-759-145-58	IC UPC4558C
C657	1-123-380-00	ELECT	1MF	20%	50V	<u>COIL</u>		
C658	1-123-332-00	ELECT	47MF	20%	16V	L601	1-407-365-00	COIL, CHOKE
C659	1-102-074-00	CERAMIC	0.001MF	10%	50V	L651	1-425-613-00	COIL, AIR-CORE, QF TYPE
C660	1-123-875-91	ELECT	10MF	20%	50V	L652	1-459-585-11	COIL (WITH CORE) (DRUM TYPE)
C661	1-123-973-00	ELECT	100MF	20%	16V	L653	1-425-613-00	COIL, AIR-CORE, QF TYPE
C662	1-110-190-81	MYLAR	0.01MF	10%	400V	L654	1-425-613-00	COIL, AIR-CORE, QF TYPE
C663	1-123-380-00	ELECT	1MF	20%	50V			
C664	1-124-038-00	ELECT	1MF	20%	50V			
C665	1-123-380-00	ELECT	1MF	20%	50V			
C666	1-123-307-00	ELECT	100MF	20%	6.3V			
C667	1-102-121-00	CERAMIC	0.0022MF	10%	50V			
C668	1-110-190-81	MYLAR	0.01MF	10%	400V			

F A

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark				
<u>TRANSISTOR</u>											
Q601	8-729-195-82	TRANSISTOR 2SC2958		R657	1-215-698-91	METAL	22 5% 1/6W				
Q602	8-729-301-00	TRANSISTOR 2SD1497-02		R659	1-215-865-11	METAL OXIDE	220 5% 1W F				
	4-365-216-00	SPACER, MICA; Q602		R660	1-215-370-11	METAL OXIDE	1.2 5% 2W F				
*4-368-683-01	SPRING; Q602			R662	1-215-776-91	METAL	39K 5% 1/6W				
Q603	8-729-178-54	TRANSISTOR 2SC2785		R663	1-215-764-91	METAL	12K 5% 1/6W				
Q651	8-729-109-53	TRANSISTOR 2SD795A		R664	1-215-200-00	METAL	100K 5% 1/4W				
Q652	8-729-178-54	TRANSISTOR 2SC2785		R665	1-215-754-91	METAL	4.7K 5% 1/6W				
Q653	8-729-178-54	TRANSISTOR 2SC2785		R666	1-215-144-00	METAL	470 5% 1/4W				
				R667	1-215-126-81	METAL	82 5% 1/4W				
				R668	1-215-778-91	METAL	47K 5% 1/6W				
<u>RESISTOR</u>											
R601	A 1-217-328-11	WIREWOUND	2.7 10% 7W F	R669	1-215-752-91	METAL	3.9K 5% 1/6W				
R602	A 1-244-945-91	CARBON	1M 5% 1/2W	R670	1-215-746-91	METAL	2.2K 5% 1/6W				
R603	A 1-205-758-11	CEMENTED	100 10% 10W F	<u>VARIABLE RESISTOR</u>							
R604	A 1-247-289-11	CARBON	8.2M 5% 1W	RV651	1-230-627-11	RES, ADJ, CARBON 1K					
R605	1-215-798-91	METAL	330K 5% 1/6W	RV652	1-226-720-00	RES, ADJ, METAL GLAZE 2.2K					
R606	1-215-770-91	METAL	22K 5% 1/6W	<u>TRANSFORMER</u>							
R608	1-215-746-91	METAL	2.2K 5% 1/6W	T601	A 1-421-776-11	LFT					
R609	1-215-871-11	METAL OXIDE	2.2K 5% 1W F	T602	A 1-421-592-11	TRANSFORMER, FERRITE					
R611	1-215-774-91	METAL	33K 5% 1/6W	T603	1-437-079-00	TRANSFORMER, HORIZONTAL DRIVE					
R612	A 1-215-904-51	METAL OXIDE	100K 5% 2W F	T605	A 1-421-733-21	SRT					
R613	1-215-872-11	METAL OXIDE	3.3K 5% 1W F	T606	A 1-421-866-11	LFT					
R614	1-216-459-00	METAL OXIDE	2.7K 5% 2W F	<u>THERMISTOR</u>							
R615	1-205-793-00	CEMENTED	30K 10% 10W	TH601	A 1-800-944-11	THERMISTOR TH-4700					
R616	1-215-772-91	METAL	27K 5% 1/6W	TH651	A 1-800-944-11	THERMISTOR TH-4700					
R621	1-215-762-91	METAL	10K 5% 1/6W	THP601	A 1-806-387-11	THERMISTOR (POSITIVE)					
R622	1-215-770-91	METAL	22K 5% 1/6W	THP602	A 1-806-387-11	THERMISTOR (POSITIVE)					
R623	1-215-162-00	METAL	2.7K 5% 1/4W	*****							
R624	1-215-754-91	METAL	4.7K 5% 1/6W	*A-1296-140-A A BOARD, COMPLETE							
R625	1-215-786-91	METAL	100K 5% 1/6W	*****							
R626	1-215-150-00	METAL	820 5% 1/4W	*							
R627	1-215-722-91	METAL	220 5% 1/6W	*4-368-692-03 CASE (MAIN), SHIELD							
R628	1-215-796-91	METAL	270K 5% 1/6W	*4-368-693-02 CASE (UPPER LID), SHIELD							
R629	1-215-758-91	METAL	6.8K 5% 1/6W	*4-368-694-02 CASE (BOTTOM LID), SHIELD							
R630	1-215-112-00	METAL	22 5% 1/4W	<u>CONNECTOR</u>							
R631	1-205-728-00	CEMENTED	47 10% 7W	A1	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)					
R632	1-217-192-00	WIREWOUND	0.22 10% 2W F	A2	*1-564-883-11	PLUG, CONNECTOR 6P					
R633	1-215-794-91	METAL	220K 5% 1/6W	A3	*1-564-890-11	PLUG, CONNECTOR 13P					
R634	1-215-778-91	METAL	47K 5% 1/6W	<u>CAPACITOR</u>							
R636	1-215-788-91	METAL	120K 5% 1/6W	C101	1-110-175-81	MYLAR	0.1MF 10% 100V				
R637	1-215-770-91	METAL	22K 5% 1/6W	C102	1-123-356-00	ELECT	10MF 20% 16V				
R638	1-215-430-00	METAL	2.4K 1% 1/6W	C103	1-101-006-00	CERAMIC	0.047MF 50V				
R639	1-215-754-91	METAL	4.7K 5% 1/6W	C104	1-123-356-00	ELECT	10MF 20% 16V				
R640	A 1-215-192-81	METAL	47K 5% 1/4W	C105	1-123-356-00	ELECT	10MF 20% 16V				
R641	A 1-202-613-35	SOLID	47K 10% 1/2W	C106	1-123-323-00	ELECT	470MF 20% 16V				
R642	A 1-205-758-11	CEMENTED	100 10% 10W F	C107	1-123-330-00	ELECT	22MF 20% 16V				
R651	1-216-477-11	METAL OXIDE	270 5% 3W F	C108	1-110-173-81	MYLAR	0.068MF 10% 100V				
R652	1-216-430-11	METAL OXIDE	390 5% 1W F	C109	1-110-173-81	MYLAR	0.068MF 10% 100V				
R653	1-215-754-91	METAL	4.7K 5% 1/6W	C110	1-102-963-00	CERAMIC	33PF 5% 50V				
R654	1-216-464-11	METAL OXIDE	18K 5% 2W F								
R655	1-215-794-91	METAL	220K 5% 1/6W								
R656	1-215-778-91	METAL	47K 5% 1/6W								

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

**A**

<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>	<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>
C111	1-123-318-00	ELECT	33MF	20%	16V	C170	1-123-356-00	ELECT	10MF	20%	16V
C112	1-102-527-00	CERAMIC	82PF	5%	50V	C171	1-123-318-00	ELECT	33MF	20%	16V
C113	1-102-510-00	CERAMIC	12PF	5%	50V	C172	1-123-379-00	ELECT	0.47MF	20%	50V
C115	1-102-852-00	CERAMIC	47PF	5%	50V	C173	1-123-379-00	ELECT	0.47MF	20%	50V
C116	1-102-125-00	CERAMIC	0.0047MF	10%	50V	C174	1-110-190-81	MYLAR	0.01MF	10%	400V
C117	1-102-125-00	CERAMIC	0.0047MF	10%	50V	C175	1-110-190-81	MYLAR	0.01MF	10%	400V
C118	1-102-125-00	CERAMIC	0.0047MF	10%	50V	C176	1-123-332-00	ELECT	47MF	20%	16V
C119	1-110-175-81	MYLAR	0.1MF	10%	100V	C177	1-123-332-00	ELECT	47MF	20%	16V
C120	1-102-125-00	CERAMIC	0.0047MF	10%	50V	C179	1-110-179-81	MYLAR	0.22MF	10%	100V
C122	1-123-330-00	ELECT	22MF	20%	16V	C180	1-110-179-81	MYLAR	0.22MF	10%	100V
C123	1-101-361-00	CERAMIC	150PF	5%	50V	C182	1-123-307-00	ELECT	100MF	20%	10V
C124	1-104-069-00	POLYSTYRENE	470PF	5%	50V	C183	1-101-361-00	CERAMIC	150PF	5%	50V
C125	1-101-361-00	CERAMIC	150PF	5%	50V	C184	1-102-973-00	CERAMIC	100PF	5%	50V
C126	1-123-318-00	ELECT	33MF	20%	16V	C185	1-103-741-00	POLYSTYRENE	0.0047MF	5%	50V
C127	1-102-125-00	CERAMIC	0.0047MF	10%	50V	C186	1-123-356-00	ELECT	10MF	20%	16V
C128	1-101-004-00	CERAMIC	0.01MF		50V	C187	1-110-190-81	MYLAR	0.01MF	10%	400V
C129	1-101-004-00	CERAMIC	0.01MF		50V	C188	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C130	1-102-125-00	CERAMIC	0.0047MF	10%	50V	C189	1-123-369-00	ELECT	4.7MF	20%	50V
C131	1-123-381-00	ELECT	2.2MF	20%	50V	C190	1-110-190-81	MYLAR	0.01MF	10%	400V
C132	1-102-125-00	CERAMIC	0.0047MF	10%	50V	C191	1-102-816-00	CERAMIC	120PF	5%	50V
C133	1-102-125-00	CERAMIC	0.0047MF	10%	50V	C192	1-161-319-00	CERAMIC	470PF	10%	50V
C134	1-102-125-00	CERAMIC	0.0047MF	10%	50V						<u>DISCRIMINATOR</u>
C135	1-102-525-00	CERAMIC	68PF	5%	50V	CD151	1-404-501-00	DISCRIMINATOR, CERAMIC			
C136	1-102-525-00	CERAMIC	68PF	5%	50V						
C137	1-102-125-00	CERAMIC	0.0047MF	10%	50V						
C138	1-123-380-00	ELECT	1MF	20%	50V						<u>FILTER</u>
C139	1-102-125-00	CERAMIC	0.0047MF	10%	50V	CF101	1-527-840-00	FILTER, CERAMIC			
C140	1-102-125-00	CERAMIC	0.0047MF	10%	50V	CF102	1-404-134-00	TRAP, CERAMIC (5.5MHZ)			
C141	1-123-318-00	ELECT	33MF	20%	16V	CF151	1-527-839-00	FILTER, CERAMIC			
C142	1-102-525-00	CERAMIC	68PF	5%	50V	SWF101	1-404-438-00	FILTER, SAW			
C143	1-102-934-00	CERAMIC	1PF	0.25PF	50V						<u>DIODE</u>
C144	1-123-609-00	ELECT	0.33MF	20%	50V	D101	8-719-911-19	DIODE ISS119			
C145	1-102-961-00	CERAMIC	27PF	5%	50V	D102	8-719-911-19	DIODE ISS119			
C146	1-123-380-00	ELECT	1MF	20%	50V	D103	8-719-102-71	DIODE RD5.6E-N2			
C147	1-130-072-00	FILM	0.022MF	2%	100V	D104	8-719-911-19	DIODE ISS119			
C148	1-110-186-81	MYLAR	0.0047MF	10%	400V	D105	8-719-911-19	DIODE ISS119			
C150	1-102-520-00	CERAMIC	39PF	5%	50V	D108	8-719-911-19	DIODE ISS119			
C151	1-101-004-00	CERAMIC	0.01MF		50V	D109	8-719-911-19	DIODE ISS119			
C152	1-101-004-00	CERAMIC	0.01MF		50V	D110	8-719-911-19	DIODE ISS119			
C153	1-123-356-00	ELECT	10MF	20%	16V	D111	8-719-911-19	DIODE ISS119			
C154	1-101-004-00	CERAMIC	0.01MF		50V	D112	8-719-911-19	DIODE ISS119			
C155	1-123-332-00	ELECT	47MF	20%	16V	D152	8-719-911-19	DIODE ISS119			
C156	1-123-306-00	ELECT	47MF	20%	10V	D153	8-719-911-19	DIODE ISS119			
C157	1-123-306-00	ELECT	47MF	20%	10V	D154	8-719-911-19	DIODE ISS119			
C158	1-123-379-00	ELECT	0.47MF	20%	50V						
C159	1-102-816-00	CERAMIC	120PF	5%	50V						<u>IC</u>
C160	1-102-125-00	CERAMIC	0.0047MF	10%	50V	IC101	8-759-909-08	IC TDA3541			
C161	1-123-318-00	ELECT	33MF	20%	16V	IC102	8-759-909-54	IC TDA2546A			
C164	1-108-620-91	MYLAR	0.0033MF	10%	100V	IC103	6-066-720-50	IC TDA2595			
C165	1-108-620-91	MYLAR	0.0033MF	10%	100V	IC151	8-759-007-54	IC TDA4940			
C167	1-108-620-91	MYLAR	0.0033MF	10%	100V	IC152	8-759-007-55	IC TDA4944			
C168	1-108-620-91	MYLAR	0.0033MF	10%	100V						
C169	1-123-356-00	ELECT	10MF	20%	16V						

**A**

<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>	<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>
<u>COIL</u>											
L102	1-404-476-00	COIL, IF				R121	1-215-742-91	METAL	1.5K	5%	1/6W
L103	1-408-399-00	MICRO INDUCTOR 1.5UH				R122	1-215-762-91	METAL	10K	5%	1/6W
L104	1-408-406-00	MICRO INDUCTOR 5.6UH				R125	1-215-736-91	METAL	820	5%	1/6W
L105	1-404-477-00	COIL, IF				R126	1-215-736-91	METAL	820	5%	1/6W
L106	1-404-493-00	COIL				R127	1-215-736-91	METAL	820	5%	1/6W
L107	1-404-493-00	COIL				R129	1-215-810-91	METAL	1M	5%	1/6W
L108	1-404-691-11	VIFT				R131	1-215-762-91	METAL	10K	5%	1/6W
L109	1-408-409-00	MICRO INDUCTOR 10UH				R134	1-215-770-91	METAL	22K	5%	1/6W
L110	1-408-406-00	MICRO INDUCTOR 5.6UH				R135	1-215-776-91	METAL	39K	5%	1/6W
L111	1-404-493-00	COIL				R136	1-215-770-91	METAL	22K	5%	1/6W
L113	1-408-226-00	MICRO INDUCTOR 82UH				R137	1-215-770-91	METAL	22K	5%	1/6W
L115	1-408-405-00	MICRO INDUCTOR 4.7UH				R141	1-215-766-91	METAL	15K	5%	1/6W
L116	1-408-406-00	MICRO INDUCTOR 5.6UH				R142	1-215-786-91	METAL	100K	5%	1/6W
L117	1-408-428-00	MICRO INDUCTOR 390UH				R143	1-215-786-91	METAL	100K	5%	1/6W
L161	1-408-429-00	MICRO INDUCTOR 470UH				R145	1-215-752-91	METAL	3.9K	5%	1/6W
L171	1-408-408-00	MICRO INDUCTOR 8.2UH				R146	1-215-184-00	METAL	22K	5%	1/4W
L172	1-408-421-00	MICRO INDUCTOR 100UH				R150	1-215-726-91	METAL	330	5%	1/6W
<u>TRANSISTOR</u>											
Q101	8-729-178-54	TRANSISTOR 2SC2785				R154	1-215-714-91	METAL	100	5%	1/6W
Q102	8-729-105-47	TRANSISTOR 2SC2026-L				R155	1-215-770-91	METAL	22K	5%	1/6W
Q105	8-729-117-54	TRANSISTOR 2SA1175				R156	1-215-784-91	METAL	82K	5%	1/6W
Q106	8-729-900-61	TRANSISTOR DTA114ES				R157	1-215-726-91	METAL	330	5%	1/6W
Q107	8-729-900-61	TRANSISTOR DTA114ES				R158	1-215-726-91	METAL	330	5%	1/6W
Q108	8-729-900-61	TRANSISTOR DTA114ES				R159	1-215-754-91	METAL	4.7K	5%	1/6W
Q109	8-729-900-61	TRANSISTOR DTA114ES				R160	1-215-754-91	METAL	4.7K	5%	1/6W
Q151	8-729-178-54	TRANSISTOR 2SC2785				R161	1-215-754-91	METAL	4.7K	5%	1/6W
Q152	8-729-178-54	TRANSISTOR 2SC2785				R162	1-215-754-91	METAL	4.7K	5%	1/6W
Q153	8-729-178-54	TRANSISTOR 2SC2785				R163	1-215-738-91	METAL	1K	5%	1/6W
Q154	8-729-900-89	TRANSISTOR DTC144ES				R171	1-215-766-91	METAL	15K	5%	1/6W
Q157	8-729-900-89	TRANSISTOR DTC144ES				R172	1-215-128-00	METAL	100	5%	1/4W
Q158	8-729-900-89	TRANSISTOR DTC144ES				R174	1-215-788-91	METAL	120K	5%	1/6W
Q175	8-729-178-54	TRANSISTOR 2SC2785				R175	1-215-764-91	METAL	12K	5%	1/6W
<u>RESISTOR</u>											
R101	1-215-762-91	METAL	10K	5%	1/6W	R176	1-215-786-91	METAL	100K	5%	1/6W
R105	1-215-762-91	METAL	10K	5%	1/6W	R178	1-215-762-91	METAL	10K	5%	1/6W
R106	1-215-750-91	METAL	3.3K	5%	1/6W	R179	1-215-762-91	METAL	10K	5%	1/6W
R107	1-215-164-00	METAL	3.3K	5%	1/4W	R180	1-215-738-91	METAL	1K	5%	1/6W
R108	1-215-798-91	METAL	330K	5%	1/6W	R181	1-215-740-91	METAL	1.2K	5%	1/6W
R109	1-215-746-91	METAL	2.2K	5%	1/6W	R182	1-215-746-91	METAL	2.2K	5%	1/6W
R110	1-215-746-91	METAL	2.2K	5%	1/6W	R183	1-215-738-91	METAL	1K	5%	1/6W
R111	1-215-754-91	METAL	4.7K	5%	1/6W	R184	1-215-736-91	METAL	820	5%	1/6W
R112	1-215-744-91	METAL	1.8K	5%	1/6W	R185	1-215-726-91	METAL	330	5%	1/6W
R113	1-215-752-91	METAL	3.9K	5%	1/6W	R188	1-215-766-91	METAL	15K	5%	1/6W
R114	1-215-722-91	METAL	220	5%	1/6W	R191	1-215-726-91	METAL	330	5%	1/6W
R115	1-215-750-91	METAL	3.3K	5%	1/6W	R192	1-215-726-91	METAL	330	5%	1/6W
R116	1-215-730-91	METAL	470	5%	1/6W	R193	1-215-714-91	METAL	100	5%	1/6W
R117	1-215-710-91	METAL	68	5%	1/6W	<u>VARIABLE RESISTOR</u>					
R118	1-215-724-91	METAL	270	5%	1/6W	RV101	1-230-633-51	RES, ADJ, CARBON 47K			
R120	1-215-778-91	METAL	47K	5%	1/6W	RV151	1-230-632-11	RES, ADJ, CARBON 33K			
						RV171	1-230-633-51	RES, ADJ, CARBON 47K			

A V

<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	
		<u>TUNER</u>		D008	8-719-102-78	DIODE RD6.8E-N2		
				D009	8-719-102-71	DIODE RD5.6E-N2		
		<b>TU101A 1-463-523-11 TUNER, ET (UHF/VHF) (UV417)</b>						
						<u>IC</u>		
		<b>*A-1325-023-A V BOARD, COMPLETE (KV-21XRTD ONLY)</b>		IC001	8-759-933-45	IC MAB8441P-T060		
		<b>*****</b>		IC002	8-759-918-54	IC SAA5230		
				IC003	8-759-918-56	IC SAA5240A		
					*1-526-722-00	SOCKET, IC 40P; IC003		
				IC004	8-759-206-27	IC TC5564PL-15		
		<u>CAPACITOR</u>				<u>COIL</u>		
C001	1-123-333-00	ELECT	100MF	20%	16V	L001	1-408-411-00	MICRO INDUCTOR 15UH
C002	1-123-308-00	ELECT	220MF	20%	6.3V	L001	1-408-411-00	MICRO INDUCTOR 15UH
C003	1-123-309-00	ELECT	330MF	20%	10V	L002	1-410-328-11	MICRO INDUCTOR 10UH
C004	1-123-332-00	ELECT	47MF	20%	16V			<u>TRANSISTOR</u>
C005	1-123-333-00	ELECT	100MF	20%	16V	Q001	8-729-109-53	TRANSISTOR 2SD795A
C006	1-123-321-00	ELECT	220MF	20%	16V	Q002	8-729-805-13	TRANSISTOR 2SC1475-13
C007	1-123-356-00	ELECT	10MF	20%	16V	Q003	8-729-178-54	TRANSISTOR 2SC2785
C008	1-102-951-00	CERAMIC	15PF	5%	50V	Q004	8-729-178-54	TRANSISTOR 2SC2785
C009	1-102-074-00	CERAMIC	0.001MF	10%	50V	Q005	8-729-805-13	TRANSISTOR 2SC1475-13
C010	1-102-824-21	CERAMIC	470PF	5%	50V	Q006	8-729-178-54	TRANSISTOR 2SC2785
C011	1-110-182-81	MYLAR	0.022MF	10%	250V	Q007	8-729-178-54	TRANSISTOR 2SC2785
C012	1-102-980-00	CERAMIC	270PF	5%	50V	Q008	8-729-178-54	TRANSISTOR 2SC2785
C013	1-102-973-00	CERAMIC	100PF	5%	50V	Q009	8-729-117-54	TRANSISTOR 2SA1175
C014	1-102-951-00	CERAMIC	15PF	5%	50V	Q010	8-729-117-54	TRANSISTOR 2SA1175
C015	1-102-961-00	CERAMIC	27PF	5%	50V	Q011	8-729-117-54	TRANSISTOR 2SA1175
C016	1-110-190-81	MYLAR	0.01MF	10%	400V			<u>RESISTOR</u>
C017	1-110-171-81	MYLAR	0.047MF	10%	100V	R001	1-247-745-11	CARBON
C018	1-102-953-00	CERAMIC	18PF	5%	50V	R002	1-215-762-91	METAL
C019	1-110-171-81	MYLAR	0.047MF	10%	100V	R003	1-215-778-91	METAL
C020	1-102-978-00	CERAMIC	220PF	5%	50V	R004	1-215-867-00	METAL OXIDE
C021	1-110-173-81	MYLAR	0.068MF	10%	100V	R005	1-215-714-91	METAL
C022	1-102-961-00	CERAMIC	27PF	5%	50V	R006	1-215-738-91	METAL
C023	1-102-961-00	CERAMIC	27PF	5%	50V	R007	1-215-714-91	METAL
C024	1-123-307-00	ELECT	100MF	20%	10V	R008	1-215-726-91	METAL
C025	1-123-306-00	ELECT	47MF	20%	10V	R009	1-215-780-91	METAL
C027	1-102-820-00	CERAMIC	330PF	5%	50V	R010	1-215-754-91	METAL
C028	1-102-116-00	CERAMIC	680PF	10%	50V	R011	1-215-738-91	METAL
C029	1-123-369-00	ELECT	4.7MF	20%	25V	R012	1-215-754-91	METAL
C051	1-110-175-81	MYLAR	0.1MF	10%	100V	R013	1-215-714-91	METAL
C052	1-110-175-81	MYLAR	0.1MF	10%	100V	R014	1-215-714-91	METAL
C053	1-110-175-81	MYLAR	0.1MF	10%	100V	R015	1-215-810-91	METAL
C054	1-110-175-81	MYLAR	0.1MF	10%	100V	R016	1-215-744-91	METAL
C055	1-110-175-81	MYLAR	0.1MF	10%	100V	R017	1-215-738-91	METAL
C056	1-110-175-81	MYLAR	0.1MF	10%	100V	R018	1-215-754-91	METAL
				R019	1-215-730-91	METAL		
				R020	1-215-756-91	METAL		
				R021	1-215-746-91	METAL		
		<u>TRIMMER</u>		R022	1-215-746-91	METAL		
CT001	1-141-181-11	CAP, TRIMMER		R023	1-215-738-91	METAL		
		<u>DIODE</u>		R024	1-215-746-91	METAL		
D001	8-719-100-35	DIODE RD5.6E-B2						
D002	8-719-100-68	DIODE RD13E-B2						
D003	8-719-911-19	DIODE 1SS119						
D004	8-719-100-19	DIODE RD3.6E-B2						

The components identified by shading and mark A are critical for safety. Replace only with part number specified.

V C

<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>	<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>
R025	1-215-754-91	METAL	4.7K	5%	1/6W		C709	1-102-116-00	CERAMIC	680PF	10% 50V
R026	1-215-762-91	METAL	10K	5%	1/6W		C710	1-102-116-00	CERAMIC	680PF	10% 50V
R027	1-215-702-91	METAL	33	5%	1/6W		C712	1-162-583-11	CERAMIC	330PF	10% 400V
R028	1-215-702-91	METAL	33	5%	1/6W		C713	1-102-947-00	CERAMIC	10PF	5% 50V
R029	1-215-702-91	METAL	33	5%	1/6W		C714	1-102-937-00	CERAMIC	4PF	0.25PF 50V
R030	1-215-130-00	METAL	120	5%	1/4W		C715	1-102-937-00	CERAMIC	4PF	0.25PF 50V
R031	1-215-130-00	METAL	120	5%	1/4W		C716	1-123-382-00	ELECT	3.3MF	20% 50V
R032	1-215-130-00	METAL	120	5%	1/4W		C717	1-123-356-00	ELECT	10MF	20% 16V
R033	1-215-712-91	METAL	82	5%	1/6W		C718	1-101-006-00	CERAMIC	0.047MF	50V
R034	1-215-738-91	METAL	1K	5%	1/6W		C719	1-102-963-00	CERAMIC	33PF	5% 50V
R037	1-215-714-91	METAL	100	5%	1/6W		C720	1-102-963-00	CERAMIC	33PF	5% 50V
R038	1-215-736-91	METAL	820	5%	1/6W		C721	1-102-963-00	CERAMIC	33PF	5% 50V
R040	1-215-754-91	METAL	4.7K	5%	1/6W						<u>DIODE</u>
R041	1-215-730-91	METAL	470	5%	1/6W		D701	8-719-911-19	DIODE	ISS119	
R043	1-215-746-91	METAL	2.2K	5%	1/6W		D702	8-719-911-19	DIODE	ISS119	
R044	1-215-730-91	METAL	470	5%	1/6W		D703	8-719-911-19	DIODE	ISS119	
R045	1-215-738-91	METAL	1K	5%	1/6W		D704	8-719-911-19	DIODE	ISS119	
R046	1-215-690-91	METAL	10	5%	1/6W		D705	8-719-911-19	DIODE	ISS119	
<u>VARIABLE RESISTOR</u>											
RV001	1-230-628-11	RES, ADJ, CARBON	2.2K				D706	8-719-911-19	DIODE	ISS119	
<u>CONNECTOR</u>											
V1	*1-560-123-00	PLUG, CONNECTOR (2.5MM)	3P				D707	8-719-911-19	DIODE	ISS119	
V2	*1-560-125-00	PLUG, CONNECTOR (2.5MM)	5P				D709	8-719-911-19	DIODE	ISS119	
V3	*1-560-126-00	PLUG, CONNECTOR (2.5MM)	6P				D710	8-719-911-19	DIODE	ISS119	
V4	*1-560-123-00	PLUG, CONNECTOR (2.5MM PITCH)									
V5	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)									
<u>CRYSTAL</u>											
X001	1-567-162-00	OSCILLATOR, CRYSTAL					J701	1-526-798-41	SOCKET, CRT		
X002	1-567-495-11	OSCILLATOR, CRYSTAL									
X003	1-567-192-11	OSCILLATOR, CERAMIC									
*****											
*A-1330-686-A C BOARD, COMPLETE											
*****											
<u>CONNECTOR</u>											
C1	*1-506-371-00	2P PLUG (L)					Q701	8-729-802-47	TRANSISTOR	2SC3504	
C2	*1-564-880-31	PLUG, CONNECTOR 3P					Q702	8-729-802-47	TRANSISTOR	2SC3504	
C3	*1-508-766-00	4P PLUG (M)					Q703	8-729-802-47	TRANSISTOR	2SC3504	
C4	*1-564-884-11	PLUG, CONNECTOR 7P					Q704	8-729-326-11	TRANSISTOR	2SC2611	
C6	*1-508-784-00	1P PLUG					Q705	8-729-326-11	TRANSISTOR	2SC2611	
<u>CAPACITOR</u>											
C701	1-123-947-00	ELECT	10MF	20%	250V		Q706	8-729-326-11	TRANSISTOR	2SC2611	
C702	1-123-356-00	ELECT	10MF	20%	16V		Q707	8-729-200-17	TRANSISTOR	2SA1091	
C703	1-123-356-00	ELECT	10MF	20%	16V		Q708	8-729-200-17	TRANSISTOR	2SA1091	
C704	1-162-114-00	CERAMIC	0.0047MF		2KV		Q709	8-729-200-17	TRANSISTOR	2SA1091	
C705	1-162-116-00	CERAMIC	680PF	10%	2KV		Q710	8-729-255-12	TRANSISTOR	2SC2551	
<u>CAPACITOR</u>											
							Q711	8-729-255-12	TRANSISTOR	2SC2551	
							Q712	8-729-255-12	TRANSISTOR	2SC2551	
							Q713	8-729-117-54	TRANSISTOR	2SA1175	
							Q714	8-729-900-36	TRANSISTOR	DTC124ES	
							Q715	8-729-178-54	TRANSISTOR	2SC2785	
<u>RESISTOR</u>											
C708	1-102-116-00	CERAMIC	680PF	10%	50V		R701	1-215-750-91	METAL	3.3K 5%	1/6W
							R702	1-215-748-91	METAL	2.7K 5%	1/6W

C | D1

The components identified by shading and mark A are critical for safety. Replace my with part number specified.

D3 D

D

Ref. No.	Part No.	Description		Remark	Ref. No.	Part No.	Description		Remark	
C416	1-124-002-11	ELECT	1MF	20%	50V	C565	1-106-182-00	MYLAR	0.0027MF	10% 100V
C417	1-131-344-00	TANTALUM	0.33MF	10%	35V	C566	1-123-318-00	ELECT	33MF	20% 16V
C418	1-131-344-00	TANTALUM	0.33MF	10%	35V	C567	1-110-116-11	MYLAR	0.068MF	10% 250V
C419	1-123-323-00	ELECT	470MF	20%	16V	C568	1-123-362-00	ELECT	330MF	20% 50V
C420	1-110-182-81	MYLAR	0.022MF	10%	250V	C569	1-131-348-00	TANTALUM	1.5MF	10% 35V
C421	1-110-182-81	MYLAR	0.022MF	10%	250V	C572	1-123-360-00	ELECT	100MF	20% 50V
C422	1-110-182-81	MYLAR	0.022MF	10%	250V	C801	1-123-362-00	ELECT	330MF	20% 50V
C423	1-101-880-00	CERAMIC	47PF	5%	50V	C803	1-110-192-81	MYLAR	0.015MF	10% 400V
C424	1-110-182-81	MYLAR	0.022MF	10%	250V	C804	1-123-948-00	ELECT	22MF	20% 250V
C425	1-110-182-81	MYLAR	0.022MF	10%	250V	C805	A.1-162-114-51	CERAMIC	0.0047MF	2KV
C426	1-110-182-81	MYLAR	0.022MF	10%	250V	C806	1-110-170-81	MYLAR	0.039MF	10% 100V
C427	1-110-179-81	MYLAR	0.22MF	10%	100V	C807	1-123-333-00	ELECT	100MF	20% 16V
C428	1-110-179-81	MYLAR	0.22MF	10%	100V	C808	1-123-333-00	ELECT	100MF	20% 16V
C429	1-110-179-81	MYLAR	0.22MF	10%	100V	C809	1-123-322-00	ELECT	330MF	20% 16V
C430	1-123-318-00	ELECT	33MF	20%	16V	C810	1-123-024-00	ELECT	33MF	160V
C431	1-123-318-00	ELECT	33MF	20%	16V	C811	1-136-308-11	FILM	0.68MF	5% 200V
C432	1-123-318-00	ELECT	33MF	20%	16V	C812	1-123-943-00	ELECT	1MF	20% 250V
C433	1-110-190-81	MYLAR	0.01MF	10%	400V	C813	1-102-244-00	CERAMIC	220PF	10% 500V
C434	1-123-318-00	ELECT	33MF	20%	16V	C814	1-110-172-81	MYLAR	0.056MF	10% 100V
C435	1-110-186-81	MYLAR	0.0047MF	10%	400V	C815	1-136-116-00	FILM	1MF	5% 200V
C436	1-123-318-00	ELECT	33MF	20%	16V	C817	A.1-136-483-11	FILM	0.0095MF	3% 1.4KV
C437	1-102-951-00	CERAMIC	15PF	5%	50V	C818	A.1-129-721-51	FILM	0.039MF	10% 630V
C438	1-123-321-00	ELECT	220MF	20%	16V	C819	1-161-754-00	CERAMIC	0.001MF	10% 3KV
C439	1-123-318-00	ELECT	33MF	20%	16V	C820	1-110-192-81	MYLAR	0.015MF	10% 400V
C501	1-123-356-00	ELECT	10MF	20%	50V	C821	A.1-102-327-11	CERAMIC	330PF	15% 1.5KV
C502	1-110-187-81	MYLAR	0.0056MF	10%	400V	C822	1-102-114-00	CERAMIC	470PF	10% 50V
C503	1-110-175-81	MYLAR	0.1MF	10%	100V	C823	1-110-186-81	MYLAR	0.0047MF	10% 400V
C504	1-123-332-00	ELECT	47MF	20%	16V	C824	1-102-157-00	CERAMIC	560PF	10% 500V
C505	1-130-023-00	FILM	0.0027MF	5%	50V	FILTER				
C506	1-110-175-81	MYLAR	0.1MF	10%	100V	CF001				
C508	1-123-379-00	ELECT	0.47MF	20%	50V	OSCILLATOR, CERAMIC				
C509	1-123-323-00	ELECT	470MF	20%	16V	CONNECTOR				
C511	1-108-614-91	MYLAR	0.001MF	10%	100V	CNP1	*1-564-346-00	CONNECTOR, BOARD TO BOARD	18P	
C512	1-124-013-11	ELECT	100MF	20%	16V	CNP2	*1-564-346-00	CONNECTOR, BOARD TO BOARD	18P	
C513	1-110-182-81	MYLAR	0.022MF	10%	250V	CNP3	*1-564-346-00	CONNECTOR, BOARD TO BOARD	18P	
C514	1-136-171-00	FILM	0.33MF	5%	50V	CNP4	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)		
C515	1-136-171-00	FILM	0.33MF	5%	50V	D1	*1-564-884-11	PLUG, CONNECTOR 7P		
C516	1-101-361-00	CERAMIC	150PF	5%	50V	D2	*1-560-126-00	PLUG, CONNECTOR (2.5MM) 6P		
C517	1-123-380-00	ELECT	1MF	20%	50V	D3	*1-564-881-11	PLUG, CONNECTOR 4P		
C518	1-123-330-00	ELECT	22MF	20%	16V	D4	*1-564-880-31	PLUG, CONNECTOR 3P		
C519	1-110-174-81	MYLAR	0.082MF	10%	100V	D5	*1-508-766-00	4P PLUG (M)		
C520	1-123-379-00	ELECT	0.47MF	20%	50V	D7	*1-508-765-00	3P PLUG (M)		
C521	1-123-369-00	ELECT	4.7MF	20%	50V	D8	*1-564-883-11	PLUG, CONNECTOR 6P		
C522	1-123-380-00	ELECT	1MF	20%	50V	D9	*1-560-125-00	PLUG, CONNECTOR (2.5MM) 5P		
C523	1-110-170-81	MYLAR	0.039MF	10%	100V	D10	*1-560-126-00	PLUG, CONNECTOR (2.5MM PITCH)		
C526	1-123-323-00	ELECT	470MF	20%	16V	D11	*1-564-887-11	PLUG, CONNECTOR 10P		
C527	1-123-336-00	ELECT	470MF	20%	25V	D12	*1-564-879-21	PLUG, CONNECTOR 2P		
C529	1-110-175-81	MYLAR	0.1MF	10%	100V	D13	*1-564-890-11	PLUG, CONNECTOR 13P		
C530	1-123-321-00	ELECT	220MF	20%	16V	D14	*1-560-123-00	PLUG, CONNECTOR (2.5MM PITCH)		
C560	1-129-743-00	FILM	0.022MF	10%	400V	D15	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P		
C561	1-123-357-00	ELECT	22MF	20%	50V	D16	*1-564-880-31	PLUG, CONNECTOR 3P		
C562	1-102-030-00	CERAMIC	330PF	10%	500V	D17	*1-564-887-11	PLUG, CONNECTOR 10P		
C563	1-123-931-00	ELECT	3.3MF	20%	160V					
C564	1-102-157-00	CERAMIC	560PF	10%	500V					

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**D**

<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
D18	*1-564-885-11	PLUG, CONNECTOR 8P		D507	8-719-911-19	DIODE 1SS119	
D19	*1-508-786-00	2P PLUG (M)		D508	8-719-911-19	DIODE 1SS119	
D20	*1-564-883-11	PLUG, CONNECTOR 6P		D509	8-719-911-19	DIODE 1SS119	
D21	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)		D510	8-719-911-19	DIODE 1SS119	
D25	*1-508-784-00	1P PLUG		D511	8-719-911-19	DIODE 1SS119	
D26	*1-508-786-00	2P PLUG (M)		D560	8-719-901-93	DIODE V19E	
DY1	*1-564-038-00	CONNECTOR PLUG, DY (MINI) 6P		D561	8-719-901-93	DIODE V19E	
		<u>DIODE</u>		D562	8-719-901-93	DIODE V19E	
D001	8-719-101-41	DIODE RD3.9E-L2		D563	8-719-901-93	DIODE V19E	
D002	8-719-911-19	DIODE 1SS119		D564	8-719-911-19	DIODE 1SS119	
D003	8-719-911-19	DIODE 1SS119		D801	8-719-901-93	DIODE V19E	
D004	8-719-911-19	DIODE 1SS119		D802	8-719-901-93	DIODE V19E	
D005	8-719-911-19	DIODE 1SS119		D803	8-719-300-65	DIODE ES1F	
D006	8-719-911-19	DIODE 1SS119		D804	8-719-901-93	DIODE V19E	
D007	8-719-911-19	DIODE 1SS119		D805	8-719-901-93	DIODE V19E	
D008	8-719-102-71	DIODE RD5.6E-N2		D806	A.8-719-906-15	DIODE ERC26-15S	
D009	8-719-101-24	DIODE RD39E-B2		D807	A.8-719-906-15	DIODE ERC26-15S	
D011	8-719-102-71	DIODE RD5.6E-N2		D808	8-719-900-26	DIODE ERD29-08J	
D012	8-719-911-19	DIODE 1SS119					
		<u>IC</u>					
D013	8-719-911-19	DIODE 1SS119		IC001	8-759-603-96	IC M50436-515SP	
D015	8-719-102-74	DIODE RD6.2E-N2		IC002	8-759-603-41	IC M58655P	
D016	8-719-911-19	DIODE 1SS119		IC004	8-759-157-40	IC UPC574J	
D017	8-719-911-19	DIODE 1SS119		IC251	8-749-943-62	IC STK-4362	
D271	8-719-911-19	DIODE 1SS119		*4-368-684-01	SPRING (L); IC251		
D401	8-719-911-19	DIODE 1SS119		IC402	8-759-911-10	IC TDA3505	
D402	8-719-911-19	DIODE 1SS119		IC403	8-759-007-21	IC MC74HC4053N	
D403	8-719-911-19	DIODE 1SS119		IC404	8-759-007-21	IC MC74HC4053N	
D404	8-719-911-19	DIODE 1SS119		IC501	8-759-915-46	IC TDA2579	
D405	8-719-911-19	DIODE 1SS119		*4-375-717-01	HEAT SINK, IC; IC501		
D406	8-719-911-19	DIODE 1SS119		IC502	8-759-403-61	IC AN78M12R	
		<u>MODULE</u>					
D407	8-719-911-19	DIODE 1SS119		IC401	1-235-534-11	CONTROL MODULE, PICTURE	
D408	8-719-911-19	DIODE 1SS119					
D409	8-719-911-19	DIODE 1SS119					
D412	8-719-911-19	DIODE 1SS119					
D413	8-719-911-19	DIODE 1SS119					
		<u>COIL</u>					
D414	8-719-911-19	DIODE 1SS119		L001	1-408-413-00	MICRO INDUCTOR 22UH	
D415	8-719-911-19	DIODE 1SS119		L002	1-408-425-00	MICRO INDUCTOR 220UH	
D416	8-719-911-19	DIODE 1SS119		L003	1-408-421-00	MICRO INDUCTOR 100UH	
D417	8-719-911-19	DIODE 1SS119		L802	1-421-329-00	COIL, CHOKE	
D418	8-719-911-19	DIODE 1SS119		L803	1-437-090-00	HDT	
D419	8-719-911-19	DIODE 1SS119		L804	1-408-239-00	MICRO INDUCTOR 4.7MMH	
D421	8-719-102-71	DIODE RD5.6E-N2		L805	1-459-626-11	HLC	
D422	8-719-911-19	DIODE 1SS119		L806	1-421-329-00	COIL, CHOKE	
D423	8-719-911-19	DIODE 1SS119		L807	1-407-365-00	COIL, CHOKE	
D424	8-719-911-19	DIODE 1SS119		L808	1-407-365-00	COIL, CHOKE	
D425	8-719-911-19	DIODE 1SS119		L809	1-407-365-00	COIL, CHOKE	
D426	8-719-911-19	DIODE 1SS119		L810	1-459-390-00	COIL (WITH CORE)	
D427	8-719-911-19	DIODE 1SS119					
D428	8-719-911-19	DIODE 1SS119					
D501	8-719-911-19	DIODE 1SS119					
		<u>TRANSISTOR</u>					
D502	8-719-911-19	DIODE 1SS119		Q001	8-729-177-32	TRANSISTOR 2SD773	
D503	8-719-911-19	DIODE 1SS119		Q002	8-729-117-54	TRANSISTOR 2SA1175	
D504	8-719-911-19	DIODE 1SS119		Q003	8-729-900-63	TRANSISTOR DTA124ES	
D506	8-719-911-19	DIODE 1SS119					

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<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>
Q004	8-729-603-50	TRANSISTOR	2SC403SP			R014	1-215-176-00	METAL	10K	5%	1/4W
Q005	8-729-117-54	TRANSISTOR	2SA1175			R015	1-215-178-00	METAL	12K	5%	1/4W
Q006	8-729-900-89	TRANSISTOR	DTC144ES			R016	1-215-184-00	METAL	22K	5%	1/4W
Q007	8-729-177-32	TRANSISTOR	2SD773			R017	1-215-774-91	METAL	33K	5%	1/6W
						R018	1-215-772-91	METAL	27K	5%	1/6W
Q008	8-729-117-54	TRANSISTOR	2SA1175			R019	1-215-774-91	METAL	33K	5%	1/6W
Q009	8-729-900-89	TRANSISTOR	DTC144ES			R020	1-215-756-91	METAL	5.6K	5%	1/6W
Q011	8-729-178-54	TRANSISTOR	2SC2785			R021	1-215-770-91	METAL	22K	5%	1/6W
Q012	8-729-117-54	TRANSISTOR	2SA1175			R022	1-215-770-91	METAL	22K	5%	1/6W
Q061	8-729-117-54	TRANSISTOR	2SA1175			R023	1-215-762-91	METAL	10K	5%	1/6W
Q401	8-729-178-54	TRANSISTOR	2SC2785			R024	1-215-770-91	METAL	22K	5%	1/6W
Q402	8-729-178-54	TRANSISTOR	2SC2785			R025	1-215-770-91	METAL	22K	5%	1/6W
Q403	8-729-178-54	TRANSISTOR	2SC2785			R026	1-215-738-91	METAL	1K	5%	1/6W
Q405	8-729-178-54	TRANSISTOR	2SC2785			R027	1-215-738-91	METAL	1K	5%	1/6W
Q406	8-729-900-80	TRANSISTOR	DTC114ES			R028	1-215-738-91	METAL	1K	5%	1/6W
Q407	8-729-178-54	TRANSISTOR	2SC2785			R029	1-215-738-91	METAL	1K	5%	1/6W
Q408	8-729-900-89	TRANSISTOR	DTC144ES			R030	1-215-738-91	METAL	1K	5%	1/6W
Q409	8-729-900-89	TRANSISTOR	DTC144ES			R031	1-215-738-91	METAL	1K	5%	1/6W
Q410	8-729-900-89	TRANSISTOR	DTC144ES			R032	1-215-738-91	METAL	1K	5%	1/6W
Q411	8-729-178-54	TRANSISTOR	2SC2785			R033	1-215-770-91	METAL	22K	5%	1/6W
Q412	8-729-178-54	TRANSISTOR	2SC2785			R035	1-215-770-91	METAL	22K	5%	1/6W
Q413	8-729-178-54	TRANSISTOR	2SC2785			R036	1-215-762-91	METAL	10K	5%	1/6W
Q501	8-729-117-54	TRANSISTOR	2SA1175			R037	1-215-738-91	METAL	1K	5%	1/6W
Q502	8-729-178-54	TRANSISTOR	2SC2785			R038	1-215-738-91	METAL	1K	5%	1/6W
Q504	8-729-117-54	TRANSISTOR	2SA1175			R039	1-215-738-91	METAL	1K	5%	1/6W
Q505	8-729-178-54	TRANSISTOR	2SC2785			R040	1-215-738-91	METAL	1K	5%	1/6W
Q507	8-729-178-54	TRANSISTOR	2SC2785			R041	1-215-738-91	METAL	1K	5%	1/6W
Q508	8-729-900-36	TRANSISTOR	DTC124ES			R042	1-215-738-91	METAL	1K	5%	1/6W
Q509	8-729-900-36	TRANSISTOR	DTC124ES			R043	1-215-738-91	METAL	1K	5%	1/6W
Q560	8-729-169-02	TRANSISTOR	2SC2690A			R044	1-215-730-91	METAL	470	5%	1/6W
Q561	8-729-195-82	TRANSISTOR	2SC2958			R045	1-215-738-91	METAL	1K	5%	1/6W
Q562	8-729-122-02	TRANSISTOR	2SA1220A			R046	1-215-730-91	METAL	470	5%	1/6W
Q563	8-729-805-13	TRANSISTOR	2SC1475-13			R047	1-215-738-91	METAL	1K	5%	1/6W
Q564	8-729-103-43	TRANSISTOR	2SB734			R048	1-215-738-91	METAL	1K	5%	1/6W
Q801	8-729-805-13	TRANSISTOR	2SC1475-13			R049	1-215-754-91	METAL	4.7K	5%	1/6W
Q802	8-729-103-43	TRANSISTOR	2SB734			R050	1-215-128-00	METAL	100	5%	1/4W
Q803	8-719-801-06	THYRISTOR	S6344G			R052	1-215-900-11	METAL	22K	5%	2W
	4-365-216-00	SPACER, MICA;	Q803			R053	1-215-726-91	METAL	330	5%	1/6W
	*4-368-683-01	SPRING;	Q803			R054	1-247-688-11	CARBON	10	5%	1/4W
Q804	8-729-300-90	TRANSISTOR	2SD1497-06			R055	1-215-730-91	METAL	470	5%	1/6W
	4-363-414-00	SPACER, MICA;	Q804			R056	1-215-738-91	METAL	1K	5%	1/6W
	*4-368-683-01	SPRING;	Q804			R057	1-215-762-91	METAL	10K	5%	1/6W
Q805	8-729-168-82	TRANSISTOR	2SC2688			R058	1-215-754-91	METAL	4.7K	5%	1/6W
<u>RESISTOR</u>											
R001	1-215-778-91	METAL	47K	5%	1/6W	R062	1-215-788-91	METAL	120K	5%	1/6W
R002	1-215-778-91	METAL	47K	5%	1/6W	R063	1-215-748-91	METAL	2.7K	5%	1/6W
R003	1-215-770-91	METAL	22K	5%	1/6W	R064	1-215-730-91	METAL	470	5%	1/6W
R004	1-215-770-91	METAL	22K	5%	1/6W	R065	1-215-774-91	METAL	33K	5%	1/6W
R005	1-215-738-91	METAL	1K	5%	1/6W	R066	1-215-786-91	METAL	100K	5%	1/6W
R006	1-215-730-91	METAL	470	5%	1/6W	R067	1-215-762-91	METAL	10K	5%	1/6W
R007	1-215-730-91	METAL	470	5%	1/6W	R068	1-215-762-91	METAL	10K	5%	1/6W
R008	1-215-730-91	METAL	470	5%	1/6W	R070	1-215-136-00	METAL	220	5%	1/4W
R009	1-215-738-91	METAL	1K	5%	1/6W						
R011	1-215-754-91	METAL	4.7K	5%	1/6W						
R012	1-215-754-91	METAL	4.7K	5%	1/6W						
R013	1-215-770-91	METAL	22K	5%	1/6W						

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Ref.No.	Part No.	Description		Remark	Ref.No.	Part No.	Description		Remark			
R071	1-215-730-91	METAL	470	5%	1/6W	R429	1-215-200-00	METAL	100K	5%	1/4W	
R078	1-215-770-91	METAL	22K	5%	1/6W	R430	1-215-796-91	METAL	270K	5%	1/6W	
R079	1-215-772-91	METAL	27K	5%	1/6W	R431	1-215-754-91	METAL	4.7K	5%	1/6W	
R080	1-215-738-91	METAL	1K	5%	1/6W	R433	1-215-720-91	METAL	180	5%	1/6W	
R081	1-215-766-91	METAL	15K	5%	1/6W	R434	1-215-720-91	METAL	180	5%	1/6W	
R082	1-215-754-91	METAL	4.7K	5%	1/6W	R435	1-215-720-91	METAL	180	5%	1/6W	
R084	1-215-750-91	METAL	3.3K	5%	1/6W	R436	1-215-778-91	METAL	47K	5%	1/6W	
R085	1-215-754-91	METAL	4.7K	5%	1/6W	R437	1-215-144-00	METAL	470	5%	1/4W	
R086	1-215-746-91	METAL	2.2K	5%	1/6W	R438	1-215-738-91	METAL	1K	5%	1/6W	
R087	1-247-688-11	CARBON	10	5%	1/4W	R439	1-215-394-00	METAL	75	1%	1/6W	
R088	1-215-730-91	METAL	470	5%	1/6W	F	R440	1-215-394-00	METAL	75	1%	1/6W
R089	1-215-746-91	METAL	2.2K	5%	1/6W	R441	1-215-394-00	METAL	75	1%	1/6W	
R090	1-215-762-91	METAL	10K	5%	1/6W	R442	1-214-702-00	METAL	75	1%	1/4W	
R091	1-215-770-91	METAL	22K	5%	1/6W	R443	1-215-802-91	METAL	470K	5%	1/6W	
R092	1-215-810-91	METAL	1M	5%	1/6W	R444	1-215-802-91	METAL	470K	5%	1/6W	
R093	1-215-762-91	METAL	10K	5%	1/6W	R445	1-215-802-91	METAL	470K	5%	1/6W	
R094	1-215-762-91	METAL	10K	5%	1/6W	R447	1-215-744-91	METAL	1.8K	5%	1/6W	
R095	1-215-738-91	METAL	1K	5%	1/6W	R448	1-215-744-91	METAL	1.8K	5%	1/6W	
R096	1-215-766-91	METAL	15K	5%	1/6W	R449	1-215-744-91	METAL	1.8K	5%	1/6W	
R097	1-215-754-91	METAL	4.7K	5%	1/6W	R450	1-215-744-91	METAL	1.8K	5%	1/6W	
R271	1-215-734-91	METAL	680	5%	1/6W	R451	1-215-744-91	METAL	1.8K	5%	1/6W	
R272	1-215-734-91	METAL	680	5%	1/6W	R452	1-215-744-91	METAL	1.8K	5%	1/6W	
R273	1-215-730-91	METAL	470	5%	1/6W	R454	1-215-714-91	METAL	100	5%	1/6W	
R274	1-215-730-91	METAL	470	5%	1/6W	R455	1-215-714-91	METAL	100	5%	1/6W	
R275	1-215-746-91	METAL	2.2K	5%	1/6W	R456	1-215-714-91	METAL	100	5%	1/6W	
R278	1-249-393-11	CARBON	10	5%	1/6W	F	R457	1-215-738-91	METAL	1K	5%	1/6W
R279	1-249-393-11	CARBON	10	5%	1/6W	F	R458	1-215-738-91	METAL	1K	5%	1/6W
R280	1-215-786-91	METAL	100K	5%	1/6W	R459	1-215-738-91	METAL	1K	5%	1/6W	
R281	1-215-762-91	METAL	10K	5%	1/6W	R460	1-215-738-91	METAL	1K	5%	1/6W	
R284	1-247-700-11	CARBON	100	5%	1/4W	F	R461	1-215-732-91	METAL	560	5%	1/6W
R285	1-215-762-91	METAL	10K	5%	1/6W	R464	1-215-152-00	METAL	1K	5%	1/4W	
R287	1-215-786-91	METAL	100K	5%	1/6W	R465	1-247-711-11	CARBON	680	5%	1/4W	
R288	1-215-202-00	METAL	120K	5%	1/4W	R466	1-215-730-91	METAL	470	5%	1/6W	
R289	1-215-778-91	METAL	47K	5%	1/6W	R467	1-215-730-91	METAL	470	5%	1/6W	
R401	1-215-750-91	METAL	3.3K	5%	1/6W	R468	1-247-232-00	CARBON	470	5%	1/2W	
R402	1-215-762-91	METAL	10K	5%	1/6W	R469	1-215-730-91	METAL	470	5%	1/6W	
R403	1-215-762-91	METAL	10K	5%	1/6W	R501	1-215-722-91	METAL	220	5%	1/6W	
R404	1-215-752-91	METAL	3.9K	5%	1/6W	R502	1-215-748-91	METAL	2.7K	5%	1/6W	
R405	1-215-730-91	METAL	470	5%	1/6W	R503	1-215-730-91	METAL	470	5%	1/6W	
R406	1-215-730-91	METAL	470	5%	1/6W	R504	1-215-180-00	METAL	15K	5%	1/4W	
R408	1-215-732-91	METAL	560	5%	1/6W	R505	1-215-754-91	METAL	4.7K	5%	1/6W	
R409	1-215-762-91	METAL	10K	5%	1/6W	R506	1-215-750-91	METAL	3.3K	5%	1/6W	
R410	1-215-216-81	METAL	470K	5%	1/4W	R507	1-215-752-91	METAL	3.9K	5%	1/6W	
R411	1-215-810-91	METAL	1M	5%	1/6W	R508	1-215-756-91	METAL	5.6K	5%	1/6W	
R412	1-215-784-91	METAL	82K	5%	1/6W	R509	1-215-722-91	METAL	220	5%	1/6W	
R413	1-215-798-91	METAL	330K	5%	1/6W	R510	1-216-464-11	METAL	18K	5%	2W	
R414	1-215-772-91	METAL	27K	5%	1/6W	R511	1-214-763-00	METAL	27K	1%	1/4W	
R415	1-215-792-91	METAL	180K	5%	1/6W	R513	1-215-790-91	METAL	150K	5%	1/6W	
R416	1-215-770-91	METAL	22K	5%	1/6W	R516	1-215-190-00	METAL	39K	5%	1/4W	
R417	1-215-786-91	METAL	100K	5%	1/6W	R517	1-215-746-91	METAL	2.2K	5%	1/6W	
R418	1-215-734-91	METAL	680	5%	1/6W	R519	1-215-128-00	METAL	100	5%	1/4W	
R419	1-215-206-81	METAL	180K	5%	1/4W	R522	1-215-764-91	METAL	12K	5%	1/6W	
R420	1-215-778-91	METAL	47K	5%	1/6W	R523	1-215-738-91	METAL	1K	5%	1/6W	
R421	1-215-778-91	METAL	47K	5%	1/6W	R525	1-202-463-00	SOLID	2.2M	5%	1/4W	
R422	1-215-154-00	METAL	1.2K	5%	1/4W	R526	1-202-463-00	SOLID	2.2M	5%	1/4W	
R423	1-215-710-91	METAL	68	5%	1/6W	R527	1-215-714-91	METAL	100	5%	1/6W	
R424	1-215-463-00	METAL	56K	1%	1/6W							
R425	1-215-756-91	METAL	5.6K	5%	1/6W							
R426	1-215-714-91	METAL	100	5%	1/6W							
R427	1-215-128-00	METAL	100	5%	1/4W							
R428	1-215-764-91	METAL	12K	5%	1/6W							

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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R528	1-215-714-91	METAL	100 5% 1/6W	R809	1-202-826-00	SOLID	4.7K 10% 1/2W
R529	1-215-740-91	METAL	1.2K 5% 1/6W	R810	1-202-824-00	SOLID	3.3K 10% 1/2W
R530	1-215-728-91	METAL	390 5% 1/6W	R811	1-217-430-00	FUSIBLE	4.7 5% 1/2W F
R531	1-215-770-91	METAL	22K 5% 1/6W	R812	1-249-448-11	CARBON	1.2 5% 1/4W F
R532	1-215-748-91	METAL	2.7K 5% 1/6W	R813	1-217-430-00	FUSIBLE	4.7 5% 1/2W F
R533	1-215-164-00	METAL	3.3K 5% 1/4W	R814	1-244-925-00	CARBON	150K 5% 1/2W
R534	1-215-469-00	METAL	100K 1% 1/6W	R815	1-215-884-11	METAL OXIDE	47 5% 2W F
R535	1-215-198-00	METAL	82K 5% 1/4W	R816	1-215-870-11	METAL OXIDE	1.5K 5% 1W F
R536	1-215-738-91	METAL	1K 5% 1/6W	R817	1-207-678-00	WIREWOUND	10 10% 5W F
R537	1-215-758-91	METAL	6.8K 5% 1/6W	R818	1-207-678-00	WIREWOUND	10 10% 5W F
R538	1-215-712-91	METAL	82 5% 1/6W	R819	1-215-202-00	METAL	120K 5% 1/4W
R539	1-215-481-00	METAL	330K 1% 1/6W	R820	1-215-710-91	METAL	68 5% 1/6W
R540	1-215-744-91	METAL	1.8K 5% 1/6W	R821	1-215-158-00	METAL	1.8K 5% 1/4W
R541	1-215-786-91	METAL	100K 5% 1/6W	R822	1-247-749-11	CARBON	560 5% 1/2W F
R542	1-215-212-00	METAL	330K 5% 1/4W	R823	1-216-345-11	METAL OXIDE	0.47 5% 1W F
R543	1-210-825-00	SOLID	3.3M 5% 1/4W	R825	1-216-348-00	METAL OXIDE	0.82 5% 1W F
R544	1-210-825-00	SOLID	3.3M 5% 1/4W				<u>VARIABLE RESISTOR</u>
R546	1-215-200-00	METAL	100K 5% 1/4W	RV401	1-230-630-11	RES, ADJ, CARBON	10K
R549	1-215-738-91	METAL	1K 5% 1/6W	RV402	1-230-630-11	RES, ADJ, CARBON	10K
R552	1-215-738-91	METAL	1K 5% 1/6W	RV501	1-226-703-00	RES, ADJ, METAL GLAZE	10K
R560	1-247-700-11	CARBON	100 5% 1/4W F	RV502	1-226-776-00	RES, ADJ, METAL GLAZE	220K
R561	1-215-182-00	METAL	18K 5% 1/4W	RV503	1-226-775-00	RES, ADJ, METAL GLAZE	100K
R562	1-215-869-11	METAL OXIDE	1K 5% 1W F	RV560	1-230-271-00	RES, ADJ, CARBON	4.7K
R563	1-247-690-11	CARBON	15 5% 1/4W F	RV801	1-230-271-00	RES, ADJ, CARBON	4.7K
R564	1-216-350-11	METAL OXIDE	1.2 5% 1W F				<u>SPARK GAP</u>
R566	1-216-350-11	METAL OXIDE	1.2 5% 1W F	SG801	1-519-063-XX	DISCHARGING GAP	
R567	1-249-405-11	CARBON	100 5% 1/6W F				<u>TRANSFORMER</u>
R568	1-215-746-91	METAL	2.2K 5% 1/6W	T801	1-437-090-00	HDT	
R569	1-249-393-11	CARBON	10 5% 1/6W F				<u>THERMISTOR</u>
R570	1-215-148-00	METAL	680 5% 1/4W	TH560	1-806-213-00	THERMISTOR	
R571	1-215-479-00	METAL	270K 1% 1/6W				
R572	1-215-766-91	METAL	15K 5% 1/6W				
R573	1-215-726-91	METAL	330 5% 1/6W				
R574	1-215-694-91	METAL	15 5% 1/6W				
R575	1-215-164-00	METAL	3.3K 5% 1/4W				
R576	1-215-104-81	METAL	10 5% 1/4W				<u>FILTER</u>
R577	1-216-354-11	METAL OXIDE	2.7 5% 1W F	BPF301	1-235-835-11	FILTER, BAND PASS	
R580	1-249-399-11	CARBON	33 5% 1/6W F				
R583	1-215-872-11	METAL OXIDE	3.3K 5% 1W F				*A-1345-612-A D2 BOARD, COMPLETE
R584	1-215-152-00	METAL	1K 5% 1/4W				*****
R585	1-249-382-11	CARBON	1.2 5% 1/6W F				*****
R586	1-249-382-11	CARBON	1.2 5% 1/6W F				*****
R587	1-216-458-11	METAL OXIDE	1.8K 5% 2W F				*****
R588	1-215-790-91	METAL	150K 5% 1/6W				*****
R589	1-215-762-91	METAL	10K 5% 1/6W				*****
R801	1-247-270-00	CARBON	18K 5% 1/2W	C301	1-102-980-00	CERAMIC	270PF 5% 50V
R802 <del>A</del> 1-209-448-51	<del>A</del> 1-209-448-51	CARBON	1.2 5% 1/4W F	C302	1-102-980-00	CERAMIC	270PF 5% 50V
R803 <del>A</del> 1-215-883-51	<del>A</del> 1-215-883-51	METAL OXIDE	33 5% 2W F	C303	1-102-525-00	CERAMIC	68PF 5% 50V
R804	1-216-378-11	METAL OXIDE	5.6 5% 2W F	C304	1-102-735-00	CERAMIC	120PF 5% 50V
R805 <del>A</del> 1-249-448-51	<del>A</del> 1-249-448-51	CARBON	1.2 5% 1/4W F	C305	1-102-514-00	CERAMIC	22PF 5% 50V
R806	1-215-216-81	METAL	470K 5% 1/4W	C306	1-102-514-00	CERAMIC	22PF 5% 50V
R807 <del>A</del> 1-215-869-51	<del>A</del> 1-215-869-51	METAL OXIDE	1K 5% 1W F	C307	1-102-735-00	CERAMIC	120PF 5% 50V
R808	1-202-845-00	SOLID	390K 10% 1/2W	C308	1-102-525-00	CERAMIC	68PF 5% 50V

The components identified by shading and mark ~~A~~ are critical for safety. Replace only with part number specified.

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<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
C309	1-101-004-00	CERAMIC	0.01MF	50V			
C310	1-110-190-81	MYLAR	0.01MF	10%	400V		
C311	1-110-182-81	MYLAR	0.022MF	10%	250V		
C312	1-110-089-11	MYLAR	0.1MF	10%	100V		
C313	1-123-322-00	ELECT	330MF	20%	16V		
C314	1-123-380-00	ELECT	1MF	20%	50V		
C316	1-110-171-81	MYLAR	0.047MF	10%	100V		
C317	1-136-173-00	FILM	0.47MF	5%	50V		
C318	1-101-006-00	CERAMIC	0.047MF	50V			
C320	1-110-182-81	MYLAR	0.022MF	10%	250V		
C321	1-102-074-00	CERAMIC	0.001MF	10%	50V		
C322	1-102-679-00	CERAMIC	120PF	5%	50V		
C323	1-102-074-00	CERAMIC	0.001MF	10%	50V		
C324	1-101-004-00	CERAMIC	0.01MF	50V			
C325	1-101-004-00	CERAMIC	0.01MF	50V			
C327	1-102-662-00	CERAMIC	7PF	0.5PF	50V		
C328	1-102-662-00	CERAMIC	7PF	0.5PF	50V		
C329	1-102-662-00	CERAMIC	7PF	0.5PF	50V		
C330	1-102-662-00	CERAMIC	7PF	0.5PF	50V		
C331	1-123-318-00	ELECT	33MF	20%	16V		
C332	1-123-321-00	ELECT	220MF	20%	16V		
C334	1-101-361-00	CERAMIC	150PF	5%	50V		
C341	1-102-973-00	CERAMIC	100PF	5%	50V		
C342	1-102-973-00	CERAMIC	100PF	5%	50V		
C343	1-102-531-00	CERAMIC	150PF	5%	50V		
<u>CONNECTOR</u>							
CNJ2	*1-562-370-21	CONNECTOR, BOARD TO BOARD 18P		R321	1-215-738-91	METAL	1K 5% 1/6W
<u>TRIMMER</u>							
CT301	1-141-181-11	CAP, TRIMMER		R322	1-215-724-91	METAL	270 5% 1/6W
<u>DIODE</u>							
D306	8-719-000-12	DIODE MC931		R323	1-215-742-91	METAL	1.5K 5% 1/6W
<u>DELAY LINE</u>							
DL301	1-415-187-12	DELAY LINE		R324	1-215-714-91	METAL	100 5% 1/6W
<u>IC</u>							
IC301	8-759-915-57	IC TDA4555		R325	1-215-774-91	METAL	33K 5% 1/6W
<u>COIL</u>							
L301	1-404-554-11	COIL		R326	1-215-736-91	METAL	820 5% 1/6W
L302	1-404-554-11	COIL		R327	1-215-776-91	METAL	39K 5% 1/6W
L303	1-404-554-11	COIL		R328	1-215-744-91	METAL	1.8K 5% 1/6W
L304	1-408-408-00	MICRO INDUCTOR 8.2UH		R331	1-215-736-91	METAL	820 5% 1/6W
L305	1-404-554-11	COIL		R332	1-215-736-91	METAL	820 5% 1/6W
L306	1-408-429-00	MICRO INDUCTOR 470UH		R334	1-215-190-00	METAL	39K 5% 1/4W
L307	1-404-495-00	COIL		R349	1-215-714-91	METAL	100 5% 1/6W
L309	1-404-495-00	COIL		R352	1-215-190-00	METAL	39K 5% 1/4W
L310	1-408-423-00	MICRO INDUCTOR 150UH		R356	1-215-794-91	METAL	220K 5% 1/6W
L312	1-408-423-00	MICRO INDUCTOR 150UH		R357	1-215-794-91	METAL	220K 5% 1/6W
<u>VARIABLE RESISTOR</u>							
RV301 1-230-624-51 RES, ADJ, CARBON 220							

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Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark						
<u>TRANSFORMER</u>													
T301	1-404-584-11	COIL		C1238	1-110-186-81	MYLAR	0.0047MF 10% 400V						
<u>THERMISTOR</u>													
TH301	1-800-644-00	THERMISTER		C1239	1-110-186-81	MYLAR	0.0047MF 10% 400V						
<u>CRYSTAL</u>													
X301	1-567-131-00	OSCILLATOR, CRYSTAL		C1240	1-110-182-81	MYLAR	0.022MF 10% 250V						
*****													
*A-1371-170-A J1 BOARD, COMPLETE				C1241	1-110-182-81	MYLAR	0.022MF 10% 250V						
*****				C1242	1-123-380-00	ELECT	1MF 20% 50V						
<u>CAPACITOR</u>													
C1201	1-123-379-00	ELECT	0.47MF	20%	50V	C1238	1-110-186-81	MYLAR	0.0047MF 10% 400V				
C1202	1-102-824-21	CERAMIC	470PF	5%	50V	C1239	1-110-186-81	MYLAR	0.0047MF 10% 400V				
C1203	1-102-824-21	CERAMIC	470PF	5%	50V	C1240	1-110-182-81	MYLAR	0.022MF 10% 250V				
C1204	1-123-332-00	ELECT	47MF	20%	16V	C1241	1-110-182-81	MYLAR	0.022MF 10% 250V				
C1205	1-123-332-00	ELECT	47MF	20%	16V	C1242	1-123-380-00	ELECT	1MF 20% 50V				
C1206	1-123-379-00	ELECT	0.47MF	20%	50V	C1250	1-123-332-00	ELECT	47MF 20% 16V				
C1207	1-102-824-21	CERAMIC	470PF	5%	50V	C1251	1-102-976-00	CERAMIC	180PF 5% 50V				
C1208	1-102-824-21	CERAMIC	470PF	5%	50V	C1252	1-123-307-00	ELECT	100MF 20% 10V				
C1209	1-123-330-00	ELECT	22MF	20%	16V	C1253	1-123-307-00	ELECT	100MF 20% 10V				
C1210	1-123-380-00	ELECT	1MF	20%	50V	C1254	1-102-976-00	CERAMIC	180PF 5% 50V				
C1211	1-123-330-00	ELECT	22MF	20%	16V	C1255	1-123-332-00	ELECT	47MF 20% 16V				
C1212	1-123-380-00	ELECT	1MF	20%	50V	C1256	1-110-171-81	MYLAR	0.047MF 10% 100V				
C1213	1-102-824-21	CERAMIC	470PF	5%	50V	C1257	1-123-332-00	ELECT	47MF 20% 16V				
C1214	1-123-380-00	ELECT	1MF	20%	50V	C1258	1-123-332-00	ELECT	47MF 20% 16V				
C1215	1-102-074-00	CERAMIC	0.001MF	10%	50V	C1259	1-123-333-00	ELECT	100MF 20% 16V				
C1216	1-102-824-21	CERAMIC	470PF	5%	50V	C1260	1-110-182-81	MYLAR	0.022MF 10% 250V				
C1217	1-123-380-00	ELECT	1MF	20%	50V	C1261	1-110-182-81	MYLAR	0.022MF 10% 250V				
C1218	1-102-074-00	CERAMIC	0.001MF	10%	50V	<u>CONNECTOR</u>							
C1219	1-123-307-00	ELECT	100MF	20%	10V	CN1201	1-561-534-41	SOCKET	21P				
C1220	1-123-307-00	ELECT	100MF	20%	10V	CN1202	1-561-534-41	SOCKET	21P				
C1221	1-123-307-00	ELECT	100MF	20%	10V	CN1203	1-536-996-11	TERMINAL BOARD, INPUT/OUTPUT					
C1222	1-110-171-81	MYLAR	0.047MF	10%	100V	J1	*1-564-899-31	PLUG, CONNECTOR	10P				
C1223	1-110-171-81	MYLAR	0.047MF	10%	100V	J2	*1-564-897-11	PLUG, CONNECTOR	8P				
C1224	1-108-614-91	MYLAR	0.001MF	10%	100V	J3	*1-564-895-21	PLUG, CONNECTOR	6P				
C1225	1-123-321-00	ELECT	220MF	20%	16V	J4	*1-564-891-11	PLUG, CONNECTOR	2P				
C1226	1-123-332-00	ELECT	47MF	20%	16V	J5	*1-564-891-11	PLUG, CONNECTOR	2P				
C1227	1-123-307-00	ELECT	100MF	20%	10V	J6	*1-564-895-21	PLUG, CONNECTOR	6P				
C1228	1-110-171-81	MYLAR	0.047MF	10%	100V	J7	*1-564-894-11	PLUG, CONNECTOR	5P				
C1229	1-108-614-91	MYLAR	0.001MF	10%	100V	J8	*1-564-895-21	PLUG, CONNECTOR	6P				
C1230	1-123-380-00	ELECT	1MF	20%	50V	<u>DIODE</u>							
C1231	1-123-333-00	ELECT	100MF	20%	16V	D1201	8-719-102-81	DIODE	RD7.5E-N2				
C1232	1-110-184-81	MYLAR	0.033MF	10%	250V	D1202	8-719-102-81	DIODE	RD7.5E-N2				
C1233	1-123-379-00	ELECT	0.47MF	20%	50V	D1203	8-719-102-81	DIODE	RD7.5E-N2				
C1234	1-123-379-00	ELECT	0.47MF	20%	50V	D1204	8-719-102-81	DIODE	RD7.5E-N2				
C1235	1-123-381-00	ELECT	2.2MF	20%	50V	D1205	8-719-102-81	DIODE	RD7.5E-N2				
C1236	1-110-186-81	MYLAR	0.0047MF	10%	400V	D1206	8-719-102-81	DIODE	RD7.5E-N2				
C1237	1-123-381-00	ELECT	2.2MF	20%	50V	D1207	8-719-000-12	DIODE	MC931				
						D1208	8-719-000-12	DIODE	MC931				
						D1209	8-719-815-55	DIODE	1S1555				
						D1210	8-719-000-12	DIODE	MC931				
						D1211	8-719-000-12	DIODE	MC931				
						D1212	8-719-000-12	DIODE	MC931				
						D1213	8-719-102-81	DIODE	RD7.5E-N2				
						D1214	8-719-102-81	DIODE	RD7.5E-N2				
						D1215	8-719-000-06	DIODE	MC921				
						D1216	8-719-911-19	DIODE	ISS119				
						D1217	8-719-911-19	DIODE	ISS119				
						D1218	8-719-911-19	DIODE	ISS119				
						D1219	8-719-911-19	DIODE	ISS119				
						D1220	8-719-815-55	DIODE	1S1555				

**J1**

<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
D1221	8-719-102-97	DIODE RD12E-N2		R1215	1-215-772-91	METAL	27K 5% 1/6W
D1222	8-719-102-97	DIODE RD12E-N2		R1216	1-215-770-91	METAL	22K 5% 1/6W
D1223	8-719-911-19	DIODE 1SS119		R1217	1-215-736-91	METAL	820 5% 1/6W
D1224	8-719-911-19	DIODE 1SS119		R1218	1-215-772-91	METAL	27K 5% 1/6W
D1225	8-719-815-55	DIODE 1S1555		R1219	1-215-184-00	METAL	22K 5% 1/4W
<u>IC</u>							
IC1201	8-759-914-76	IC CX20199		R1220	1-215-778-91	METAL	47K 5% 1/6W
IC1202	8-759-145-58	IC UPC4558C		R1221	1-215-778-91	METAL	47K 5% 1/6W
<u>COIL</u>							
L1201	1-459-407-00	COIL, FERRITE CHOKE		R1222	1-215-772-91	METAL	27K 5% 1/6W
L1202	1-459-407-00	COIL, FERRITE CHOKE		R1223	1-215-772-91	METAL	27K 5% 1/6W
<u>TRANSISTOR</u>							
Q1203	8-729-117-54	TRANSISTOR 2SA1175		R1225	1-215-128-00	METAL	100 5% 1/4W
Q1204	8-729-178-54	TRANSISTOR 2SC2785		R1226	1-215-712-91	METAL	82 5% 1/6W
Q1205	8-729-117-54	TRANSISTOR 2SA1175		R1227	1-215-714-91	METAL	100 5% 1/6W
Q1206	8-729-117-54	TRANSISTOR 2SA1175		R1230	1-215-714-91	METAL	100 5% 1/6W
Q1207	8-729-900-65	TRANSISTOR DTA144ES		R1231	1-215-394-00	METAL	75 1% 1/6W
Q1208	8-729-178-54	TRANSISTOR 2SC2785		R1232	1-215-762-91	METAL	10K 5% 1/6W
Q1209	8-729-117-54	TRANSISTOR 2SA1175		R1233	1-215-762-91	METAL	10K 5% 1/6W
Q1210	8-729-117-54	TRANSISTOR 2SA1175		R1234	1-215-772-91	METAL	27K 5% 1/6W
Q1211	8-729-178-54	TRANSISTOR 2SC2785		R1235	1-215-772-91	METAL	27K 5% 1/6W
Q1212	8-729-178-54	TRANSISTOR 2SC2785		R1236	1-215-128-00	METAL	100 5% 1/4W
Q1213	8-729-900-89	TRANSISTOR DTC144ES		R1237	1-215-176-00	METAL	10K 5% 1/4W
Q1214	8-729-900-89	TRANSISTOR DTC144ES		R1238	1-215-176-00	METAL	10K 5% 1/4W
Q1215	8-729-117-54	TRANSISTOR 2SA1175		R1239	1-215-176-00	METAL	10K 5% 1/4W
Q1216	8-729-117-54	TRANSISTOR 2SA1175		R1240	1-247-700-11	CARBON	100 5% 1/4W F
Q1217	8-729-178-54	TRANSISTOR 2SC2785		R1241	1-215-168-00	METAL	4.7K 5% 1/4W
Q1218	8-729-178-54	TRANSISTOR 2SC2785		R1242	1-215-754-91	METAL	4.7K 5% 1/6W
Q1219	8-729-900-89	TRANSISTOR DTC144ES		R1243	1-215-738-91	METAL	1K 5% 1/6W
Q1220	8-729-900-89	TRANSISTOR DTC144ES		R1244	1-215-742-91	METAL	1.5K 5% 1/6W
Q1221	8-729-117-54	TRANSISTOR 2SA1175		R1245	1-215-810-91	METAL	1M 5% 1/6W
Q1222	8-729-900-36	TRANSISTOR DTC124ES		R1246	1-215-762-91	METAL	10K 5% 1/6W
Q1223	8-729-178-54	TRANSISTOR 2SC2785		R1247	1-215-742-91	METAL	1.5K 5% 1/6W
Q1224	8-729-178-54	TRANSISTOR 2SC2785		R1248	1-215-738-91	METAL	1K 5% 1/6W
<u>RESISTOR</u>							
R1201	1-215-802-91	METAL	470K 5% 1/6W	R1249	1-215-778-91	METAL	47K 5% 1/6W
R1202	1-215-186-00	METAL	27K 5% 1/4W	R1250	1-215-762-91	METAL	10K 5% 1/6W
R1203	1-215-778-91	METAL	47K 5% 1/6W	R1251	1-215-168-00	METAL	4.7K 5% 1/4W
R1204	1-215-730-91	METAL	470 5% 1/6W	R1252	1-215-778-91	METAL	47K 5% 1/6W
R1205	1-215-778-91	METAL	47K 5% 1/6W	R1253	1-215-778-91	METAL	47K 5% 1/6W
R1206	1-215-730-91	METAL	470 5% 1/6W	R1254	1-247-698-11	CARBON	68 5% 1/4W F
R1207	1-215-762-91	METAL	10K 5% 1/6W	R1255	1-215-702-91	METAL	33 5% 1/6W
R1208	1-215-762-91	METAL	10K 5% 1/6W	R1256	1-215-754-91	METAL	4.7K 5% 1/6W
R1209	1-215-712-91	METAL	82 5% 1/6W	R1257	1-215-754-91	METAL	4.7K 5% 1/6W
R1210	1-215-712-91	METAL	82 5% 1/6W	R1258	1-215-750-91	METAL	3.3K 5% 1/6W
R1211	1-215-802-91	METAL	470K 5% 1/6W	R1259	1-215-750-91	METAL	3.3K 5% 1/6W
R1212	1-215-772-91	METAL	27K 5% 1/6W	R1260	1-247-698-11	CARBON	68 5% 1/4W F
R1213	1-215-712-91	METAL	82 5% 1/6W	R1261	1-215-394-00	METAL	75 1% 1/6W
R1214	1-215-736-91	METAL	820 5% 1/6W	R1262	1-215-738-91	METAL	1K 5% 1/6W
				R1263	1-215-752-91	METAL	3.9K 5% 1/6W
				R1264	1-215-760-91	METAL	8.2K 5% 1/6W
				R1265	1-215-760-91	METAL	8.2K 5% 1/6W
				R1266	1-215-752-91	METAL	3.9K 5% 1/6W
				R1267	1-215-394-00	METAL	75 1% 1/6W
				R1268	1-215-702-91	METAL	33 5% 1/6W
				R1269	1-215-750-91	METAL	3.3K 5% 1/6W

J1

H1

H2

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>		
R1270	1-215-774-91	METAL	33K 5% 1/6W	S1402	1-554-804-11	SWITCH, PUSH (1 KEY)			
R1271	1-215-774-91	METAL	33K 5% 1/6W	S1403	1-554-804-11	SWITCH, PUSH (1 KEY)			
R1272	1-215-750-91	METAL	3.3K 5% 1/6W	S1404	1-554-804-11	SWITCH, PUSH (1 KEY)			
R1273	1-215-732-91	METAL	560 5% 1/6W	S1405	1-554-804-11	SWITCH, PUSH (1 KEY)			
R1274	1-247-698-11	CARBON	68 5% 1/4W F	S1406	1-554-804-11	SWITCH, PUSH (1 KEY)			
R1275	1-215-750-91	METAL	3.3K 5% 1/6W	S1407	1-554-804-11	SWITCH, PUSH (1 KEY)			
R1276	1-215-752-91	METAL	3.9K 5% 1/6W	S1408	1-554-804-11	SWITCH, PUSH (1 KEY)			
R1277	1-215-104-81	METAL	10 5% 1/4W	S1409	1-554-804-11	SWITCH, PUSH (1 KEY)			
R1278	1-215-762-91	METAL	10K 5% 1/6W	S1411	1-554-804-11	SWITCH, PUSH (1 KEY)			
R1279	1-215-144-00	METAL	470 5% 1/4W	S1413	1-554-824-11	SWITCH, PUSH (1 KEY)			
R1280	1-215-754-91	METAL	4.7K 5% 1/6W	*****					
R1281	1-215-754-91	METAL	4.7K 5% 1/6W	*1-617-746-11 H2 BOARD					
R1282	1-215-762-91	METAL	10K 5% 1/6W	*****					
R1283	1-215-786-91	METAL	100K 5% 1/6W						
R1284	1-215-168-00	METAL	4.7K 5% 1/4W						
<u>DIODE</u>									
R1285	1-215-730-91	METAL	470 5% 1/6W	D01	8-719-800-94	DIODE TLUR144			
R1286	1-215-730-91	METAL	470 5% 1/6W		*4-380-613-01	HOLDER (A), LED; D01			
*****									
<b>*1-617-747-11 H1 BOARD</b>		*****							
<u>CAPACITOR</u>									
C1401	1-123-356-00	ELECT	10MF 20% 16V	D02	8-719-812-41	DIODE TLR124			
<u>CONNECTOR</u>									
CN1401	1-507-806-00	JACK		D03	*4-337-478-00	HOLDER (F), LED; D02			
H1	*1-564-886-11	PLUG, CONNECTOR 9P			8-719-812-41	DIODE TLR124			
H2	*1-564-887-11	PLUG, CONNECTOR 10P		D04	*4-337-478-00	HOLDER (F), LED; D03			
H3	*1-564-883-11	PLUG, CONNECTOR 6P		D05	8-719-812-41	DIODE TLR124			
<u>DIODE</u>									
D1401	8-719-812-41	DIODE TLR124		D06	8-719-911-19	DIODE 1SS119			
	*4-380-621-01	HOLDER (B), LED; D1401		D07	8-719-911-19	DIODE 1SS119			
<u>RESISTOR</u>									
R1401	1-215-776-91	METAL	39K 5% 1/6W	<u>IC</u>					
R1402	1-215-770-91	METAL	22K 5% 1/6W	L901	A.1-426-280-11	COIL, DEMAGNETIZATION			
R1406	1-215-144-00	METAL	470 5% 1/4W		A.1-451-290-11	DEFLECTION YOKE (SY-153F)			
R1407	1-215-144-00	METAL	470 5% 1/4W		1-452-032-00	MAGNET, DISK; 10MM Ø			
R1408	1-215-754-91	METAL	4.7K 5% 1/6W		1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø			
R1409	1-215-746-91	METAL	2.2K 5% 1/6W		1-452-277-00	MAGNET, BMC			
<u>VARIABLE RESISTOR</u>									
RV1401	1-230-916-11	RES, VAR, CARBON 10K		L901	A.1-503-642-11	SPEAKER			
RV1402	1-230-916-11	RES, VAR, CARBON 10K			A.1-551-270-31	CORD, POWER			
RV1403	1-230-916-11	RES, VAR, CARBON 10K			A.1-554-762-21	SWITCH, PUSH (AC POWER)(1 KEY)			
RV1405	1-230-916-11	RES, VAR, CARBON 10K			*1-558-539-11	CABLE, P-P			
RV1406	1-230-916-11	RES, VAR, CARBON 10K			A.1-563-204-11	SOCKET, ANTENNA (PAL/SECAM)			
<u>SWITCH</u>									
S1401	1-554-804-11	SWITCH, PUSH (1 KEY)		RV901	A.1-237-286-11	RESISTOR ASSY, HIGH-VOLTAGE			
				T802	A.1-439-387-21	TRANSFORMER ASSY, FLYBACK			
				V901	A.8-736-954-05	CRT (A51JKQ60X)			

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

**ACCESSORIES AND PACKING MATERIALS**  
\*\*\*\*\*

<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
A-1470-744-A	COMMANDER ASSY (RM-664)	
4-377-015-01	BAG, PROTECTION	
*4-380-602-01	CUSHION (UPPER) (ASSY)	
*4-380-603-01	CUSHION (LOWER) (ASSY)	
*4-380-604-01	INDIVIDUAL CARTON	
4-482-253-71	MANUAL, INSTRUCTION	

**SONY**  
**TRINITRON® COLOR TV**  
**KV-21XRD/21XRTD**  
**RM-664**

*KV-21XRD*  
*Chassis No. SCC-784A-A*  
*KV-21XRTD*

*Chassis No. SCC-784C-A*

## **SX CHASSIS**

## **SX CHASSIS**

## **SAFETY-RELATED COMPONENT WARNING !!**

**COMPONENTS IDENTIFIED BY SHADING AND MARK**  
**⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED**  
**VIEWS AND IN THE PARTS LIST ARE CRITICAL TO**  
**SAFE OPERATION. REPLACE THESE COMPONENTS**  
**WITH SONY PARTS WHOSE PART NUMBERS APPEAR**  
**AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS**  
**PUBLISHED BY SONY.**

**Note:** The components identified by shading and mark  
⚠ are critical for safety. Replace only with  
part number specified.

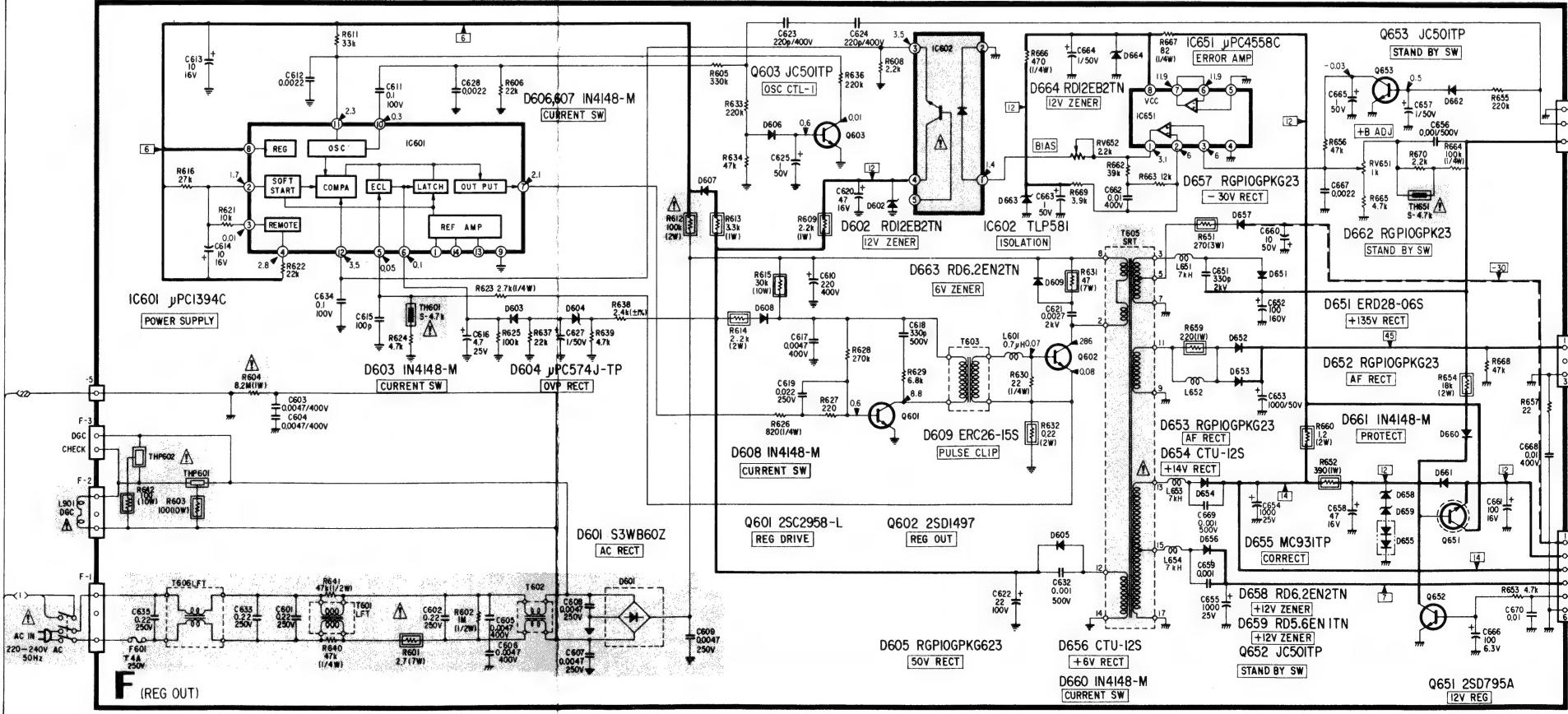
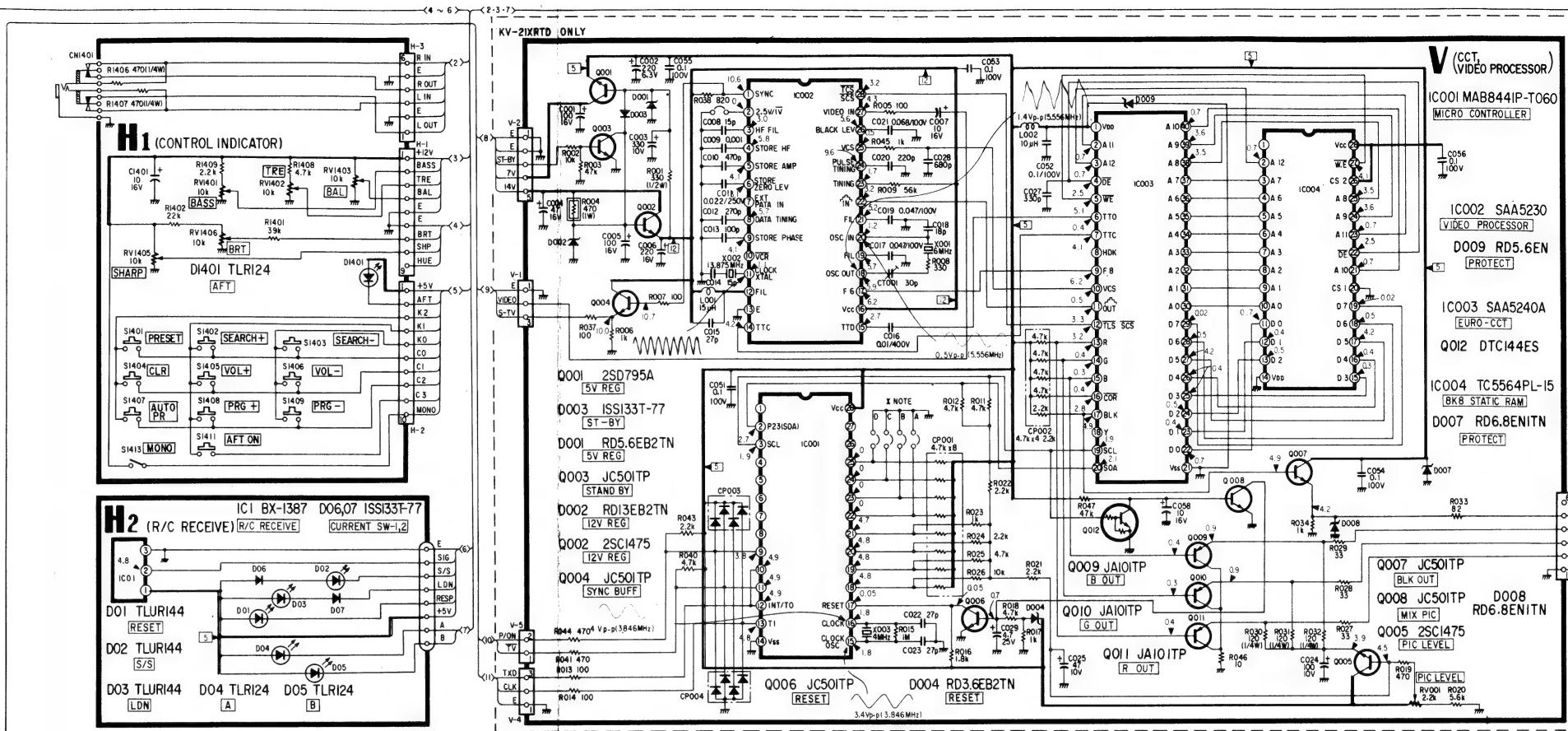
**Note:**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF:  $\mu\mu\text{F}$   
50WV or less are not indicated except for electrolytics.
  - All resistors are in ohms, 1/6W unless otherwise noted.  
k:  $1000\Omega$ ; M :  $1000\text{k}\Omega$
  - All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
  -  : nonflammable resistor.
  -  : fusible resistor.
  -  : internal component.
  -  : panel designation.
  -  : adjustment for repair.
  - All voltage are in V.
  -  : B + bus.
  -  : B - bus.
  - Voltages are dc with respect to ground unless otherwise noted.
  - Readings are taken with a  $10M\Omega$  digital multimeter.
  - Readings are taken with a color-bar signal input.
  - Voltage variations may be noted due to normal production tolerances.
  -  : signal path.

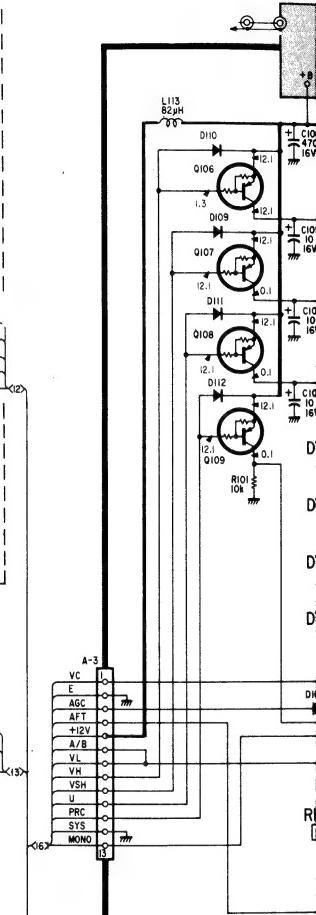
## **CIRCUIT BOARDS LOCATION**

## **SCHEMATIC DIAGRAM**

**THIS SCHEMATIC DIAGRAM IS KV-21XRTD.  
THE BOARD IS NOT USE KV21XRD.**



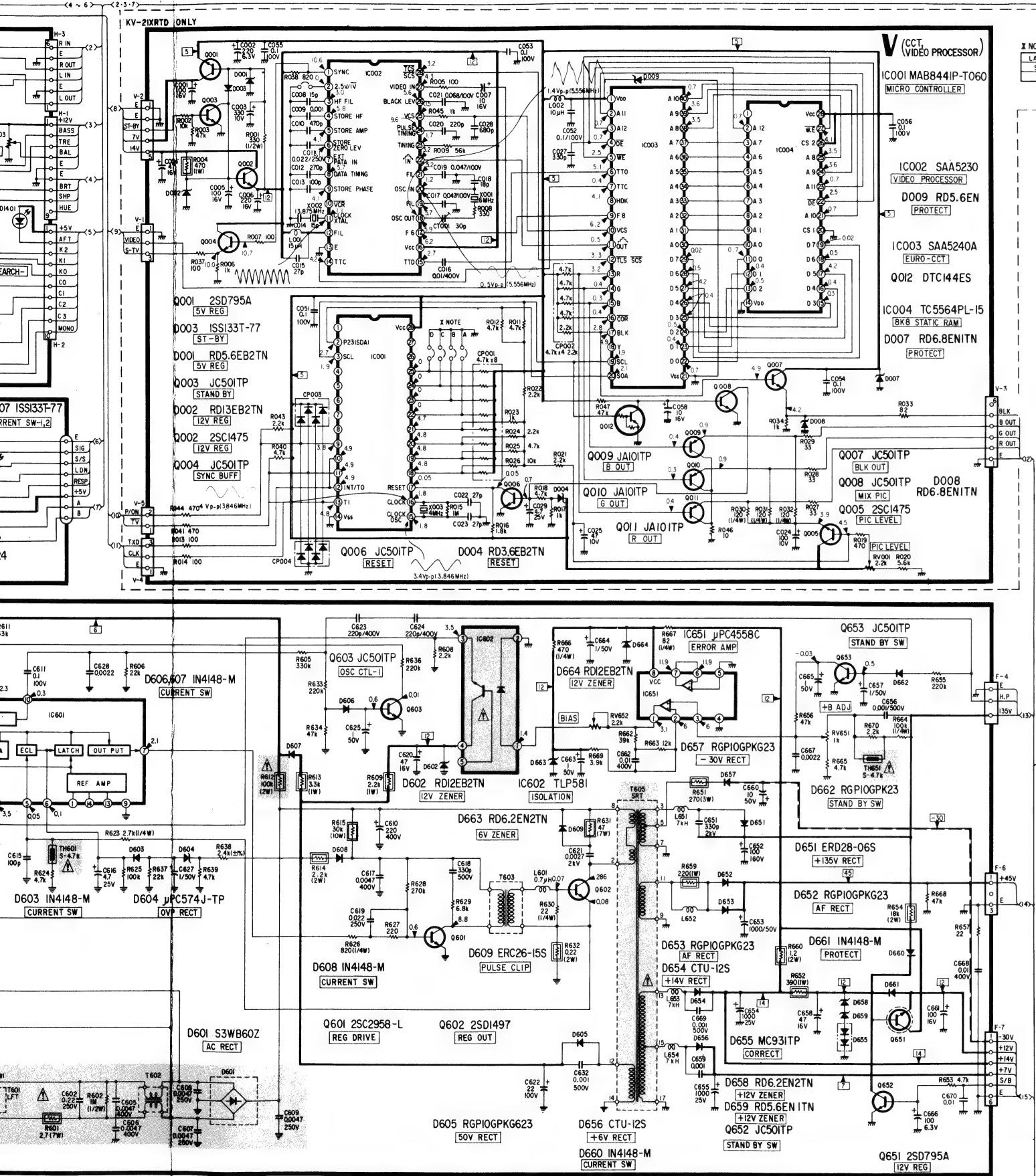
X NOTE		LANGUAGE SET		
LANGUAGE		A	B	C
SWEDISH	SHORT	OPEN	SHORT	SAA5240A
GERMAN	OPEN	SHORT	SHORT	SAA5240C



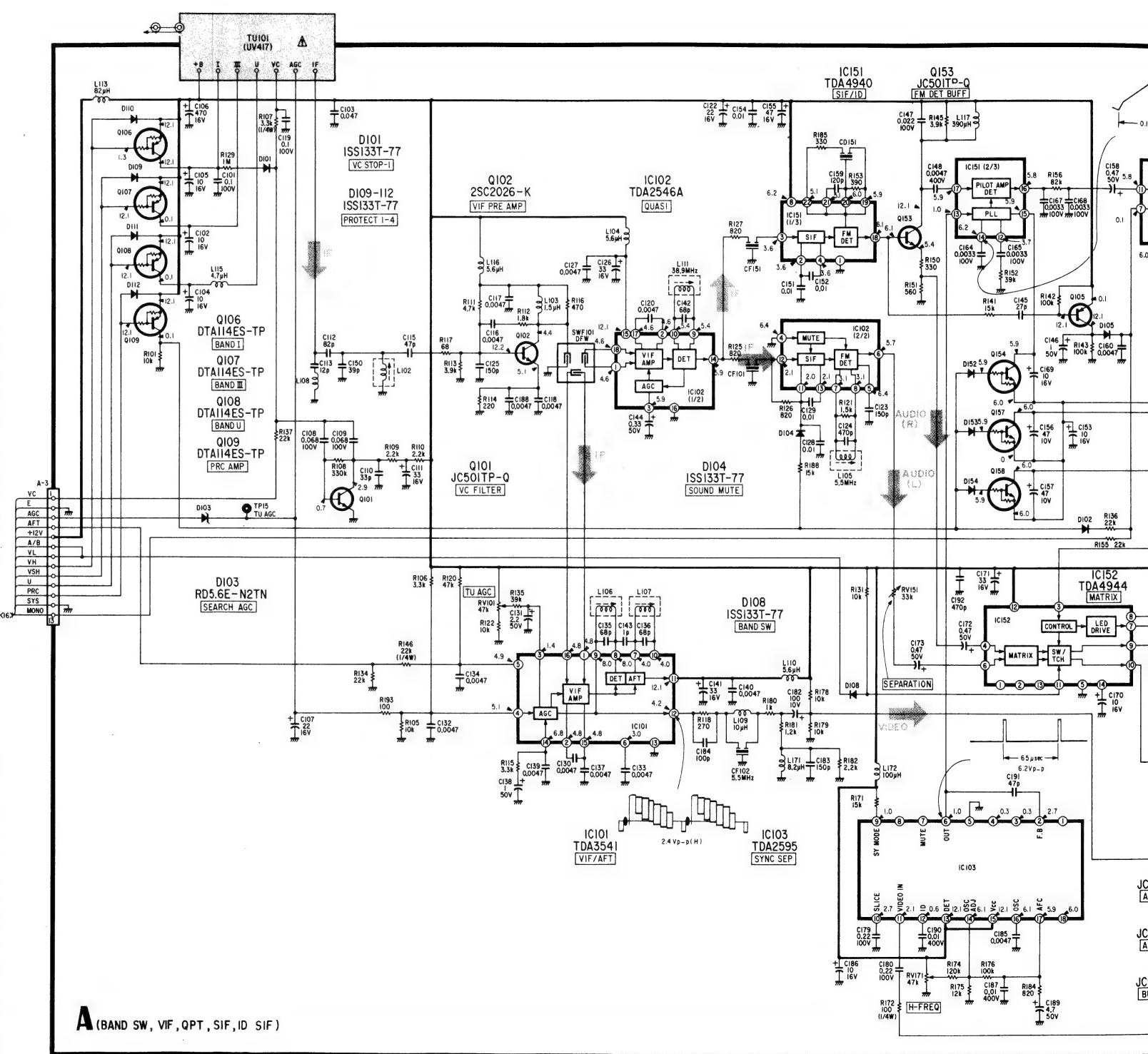
**A** (BAND SW, VIF, QPT)

THIS SCHEMATIC DIAGRAM IS KV-21XRTD.  
V BOARD IS NOT USE KV21XRD.

GRAM

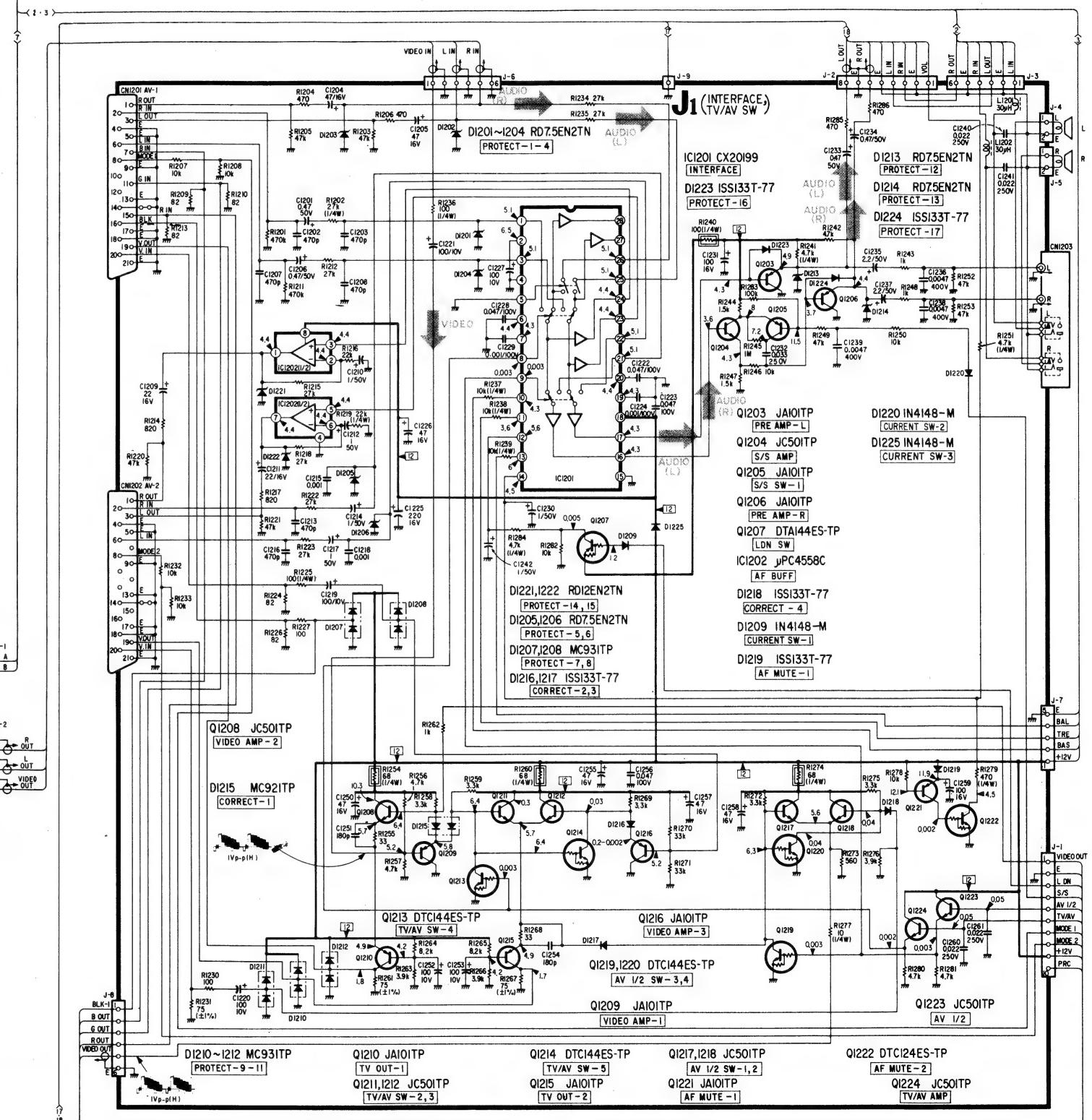
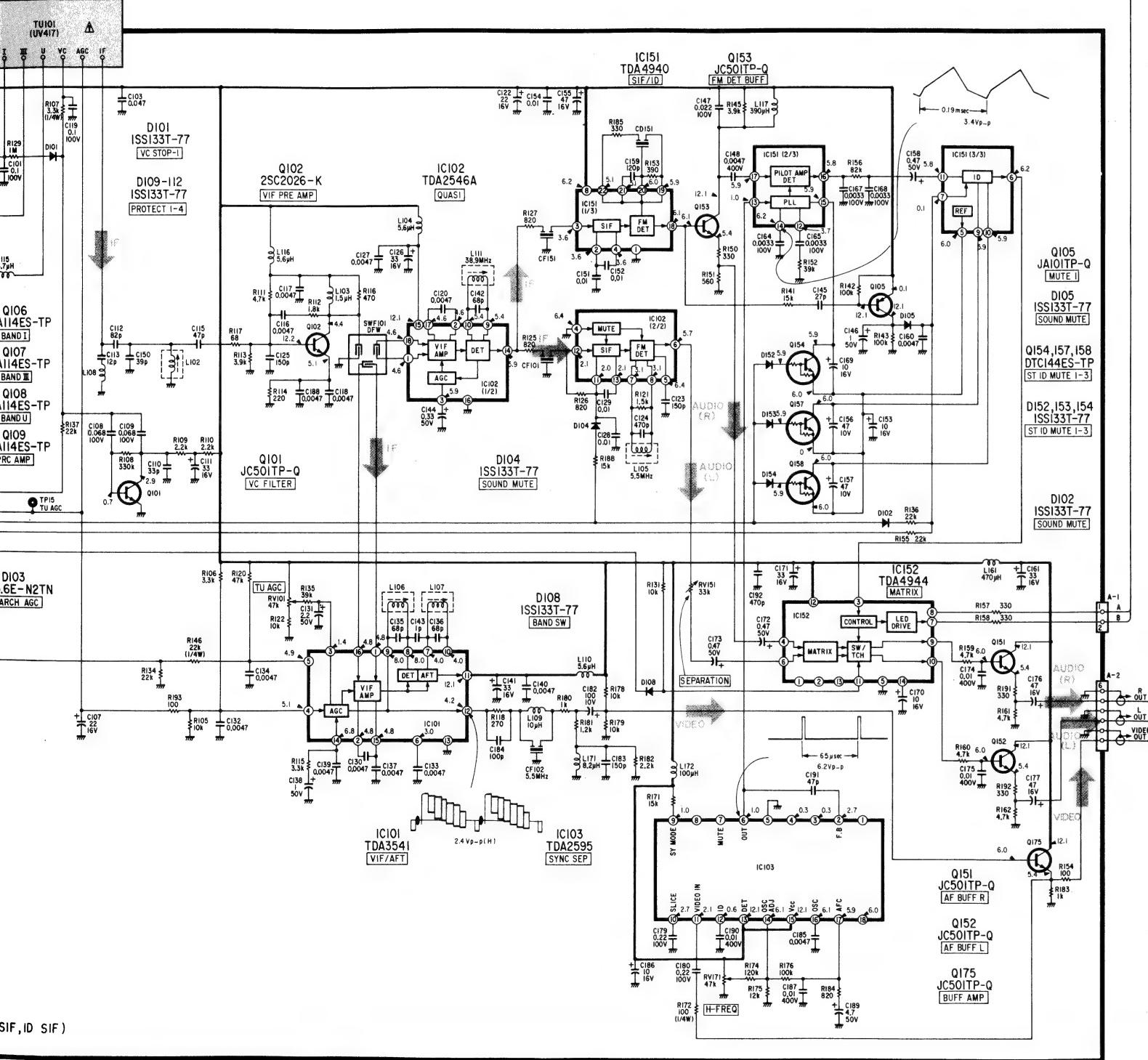


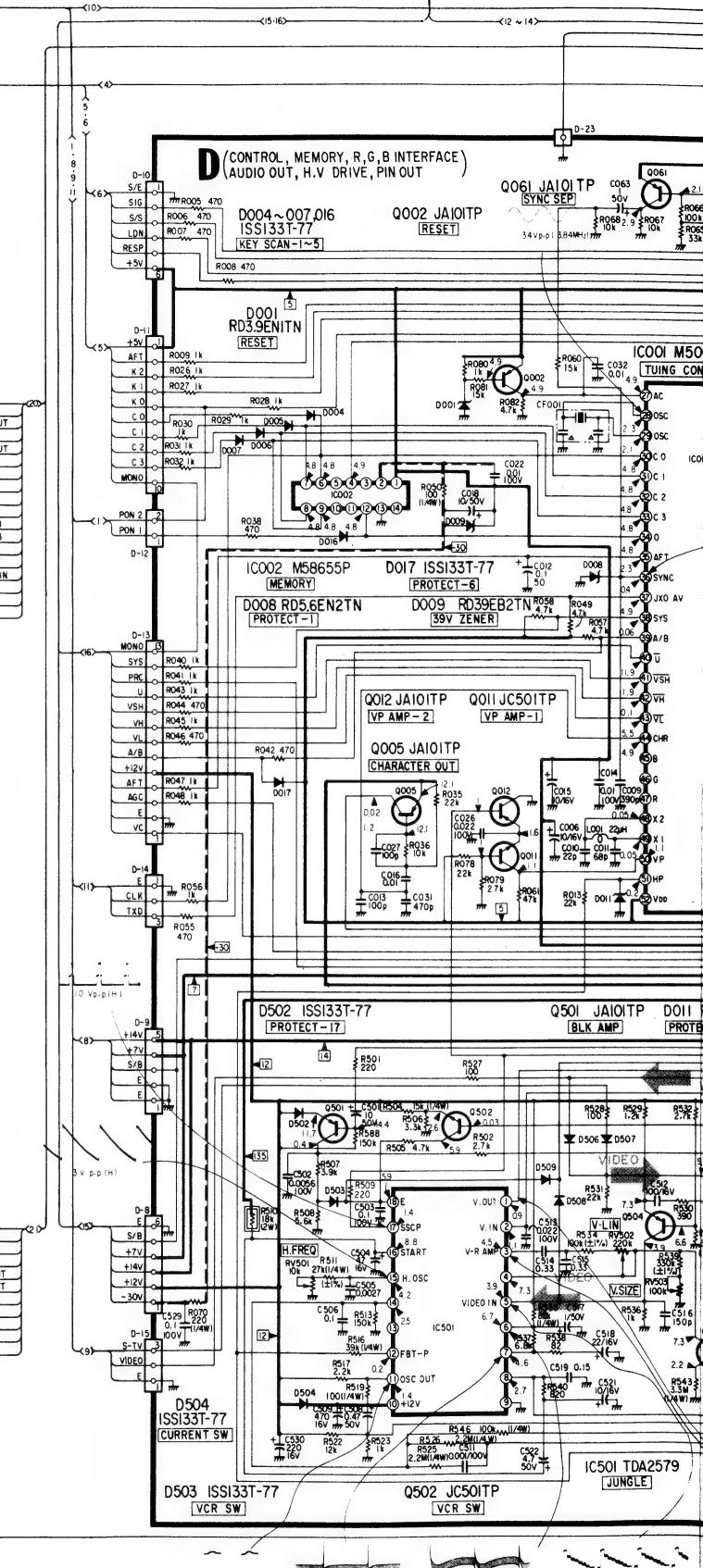
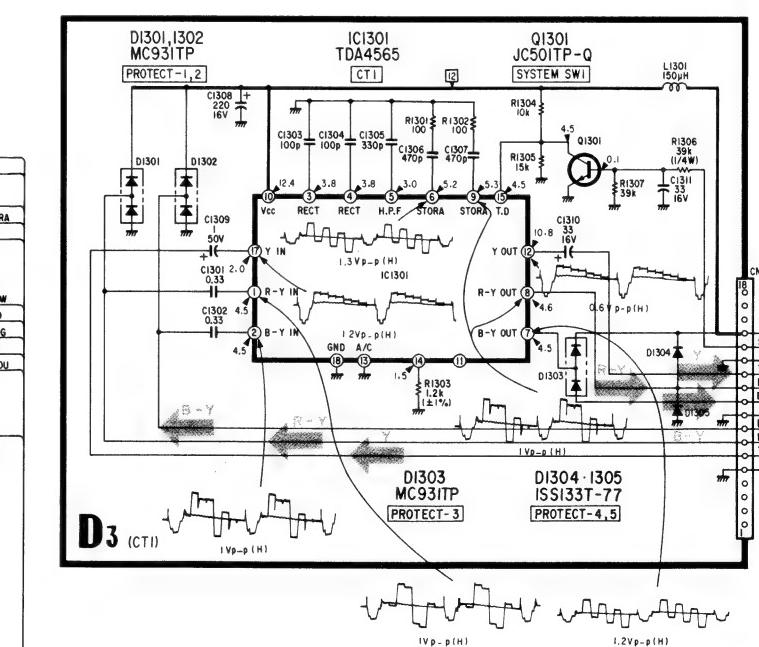
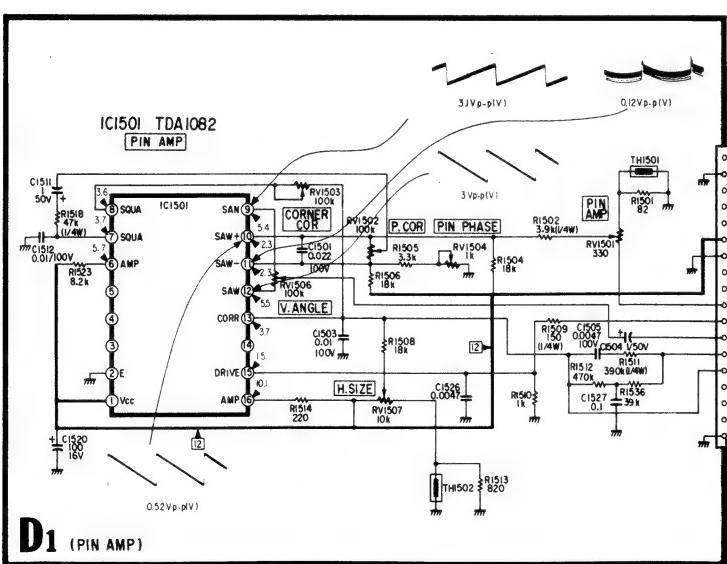
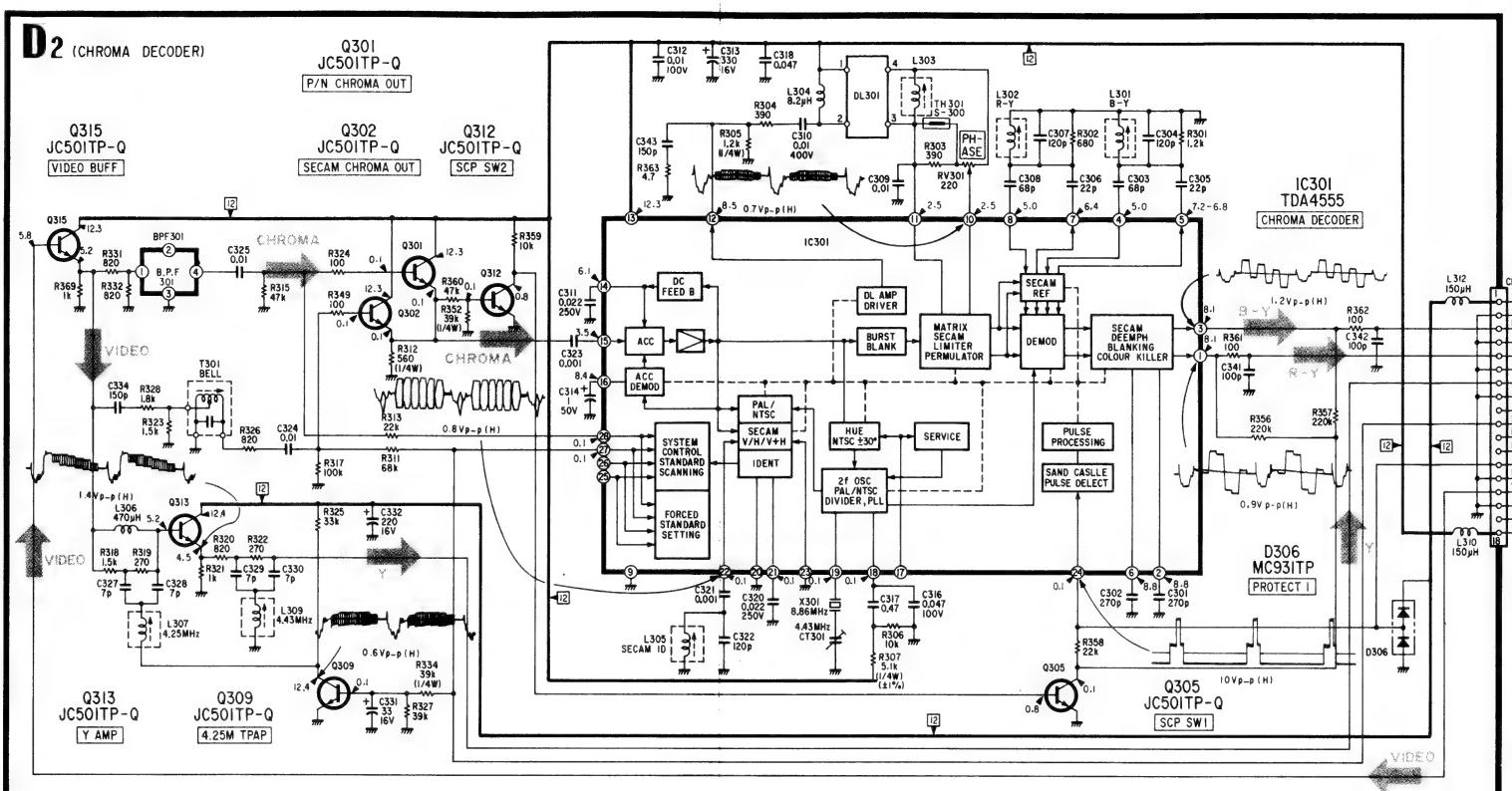
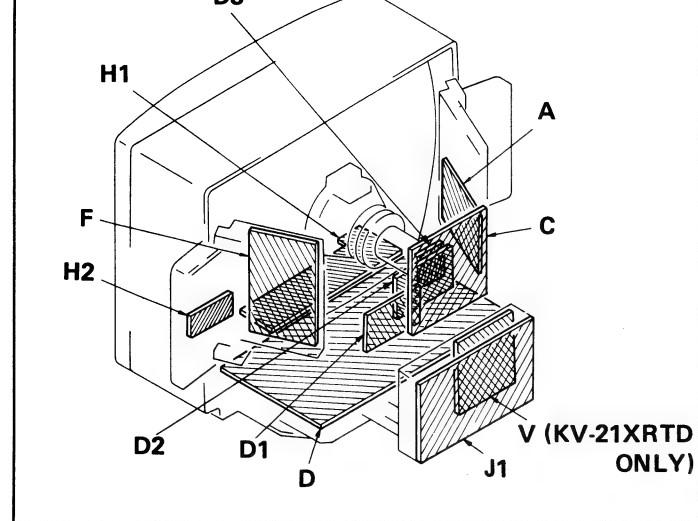
X NOTE  
LANGUAGE SET  
SWEDISH SHORT OPEN SHORT SA003  
GERMAN OPEN SHORT SHORT SA003  
MICRO CONTROLLER  
IC001 MAB844IP-T060  
VIDEO PROCESSOR  
IC002 SAA5230  
VIDEO PROCESSOR  
D009 RD5.6EN PROTECT  
IC003 SAA5240A EURO-CCT  
Q012 DTC144ES  
IC004 TC5564PL-15 BK8 STATIC RAM  
D007 RD6.8ENITN PROTECT

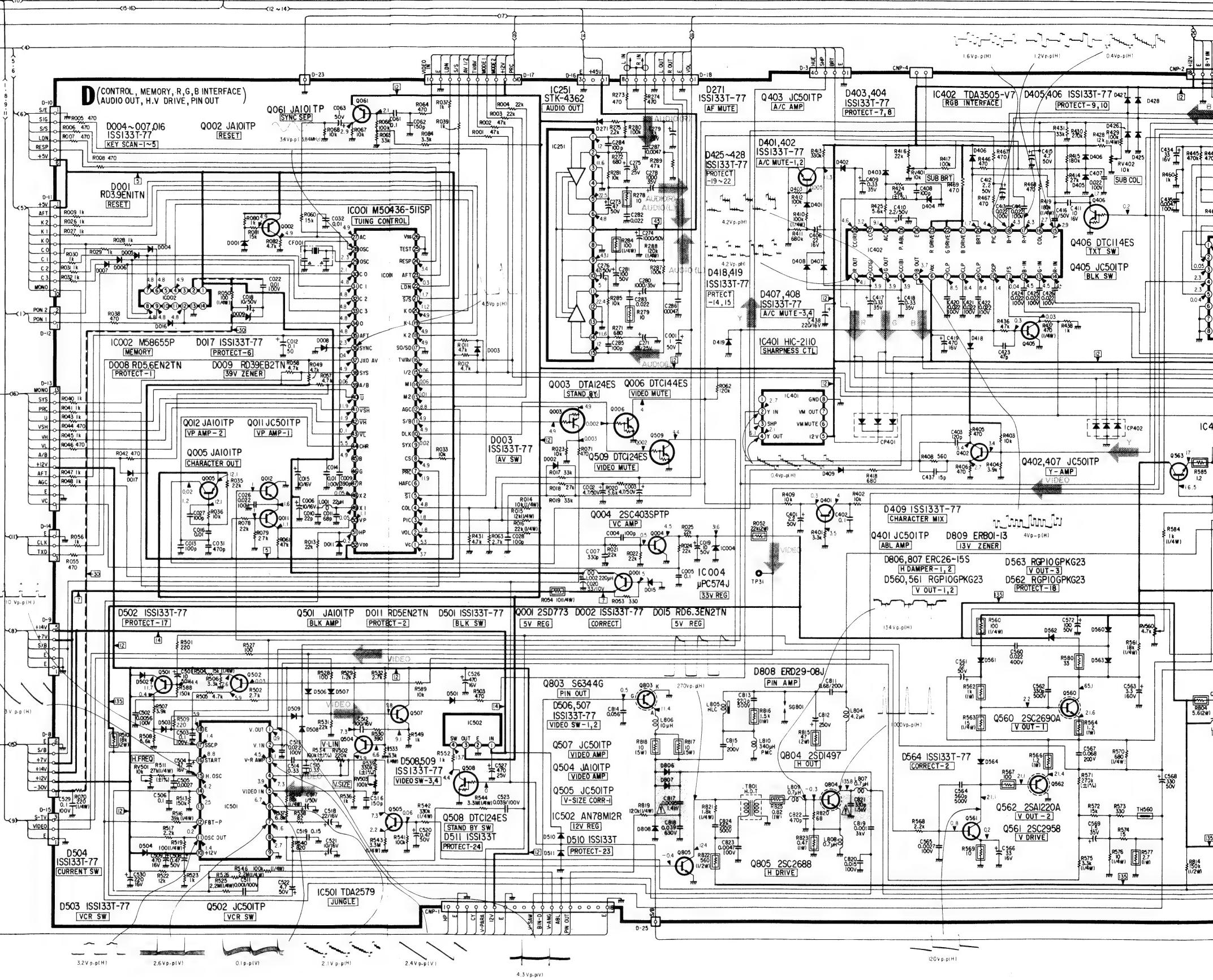
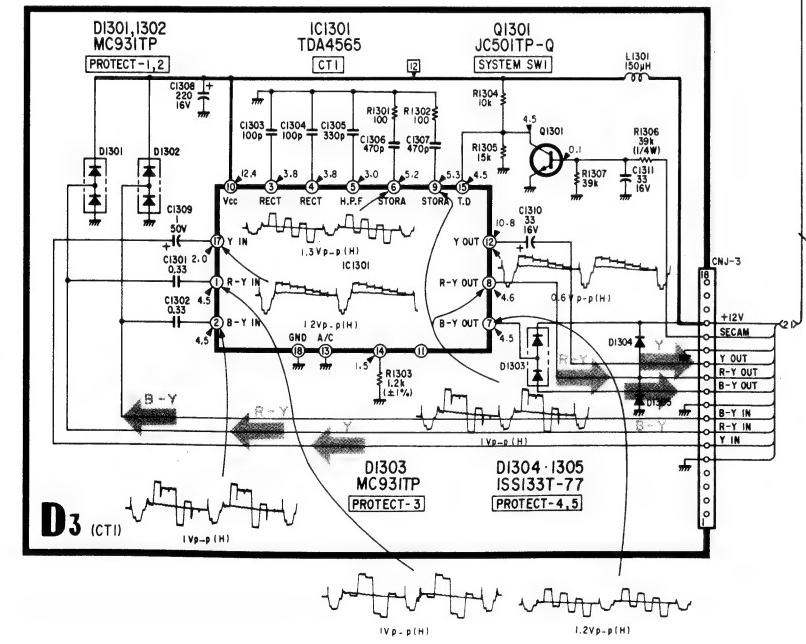
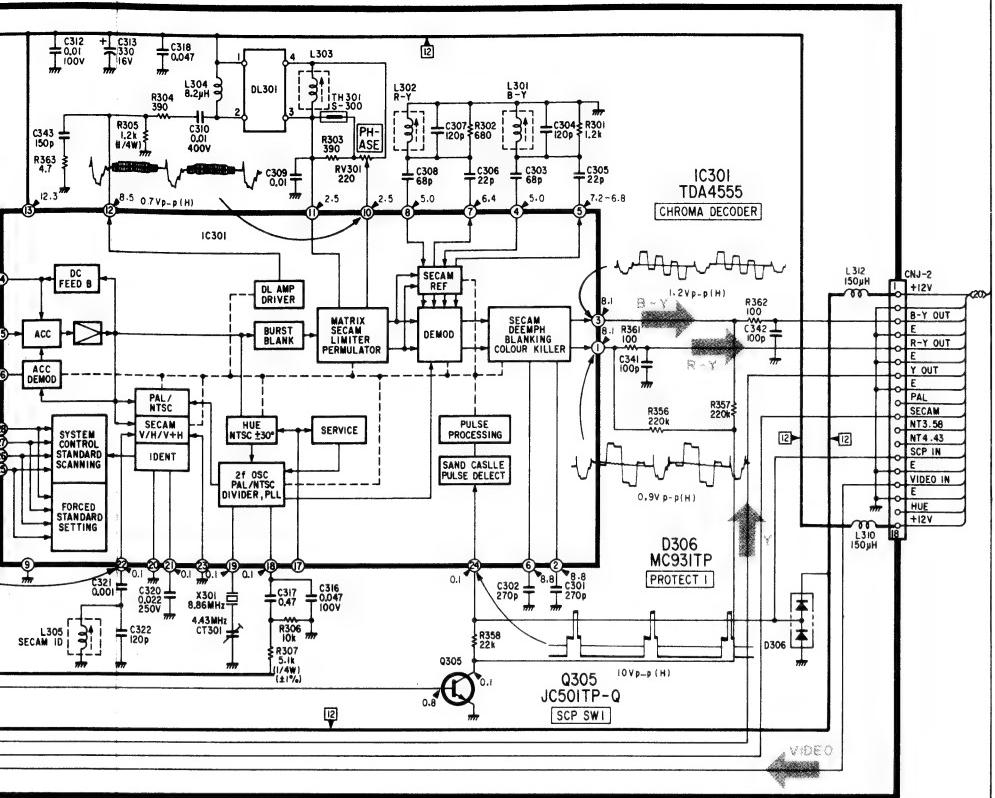


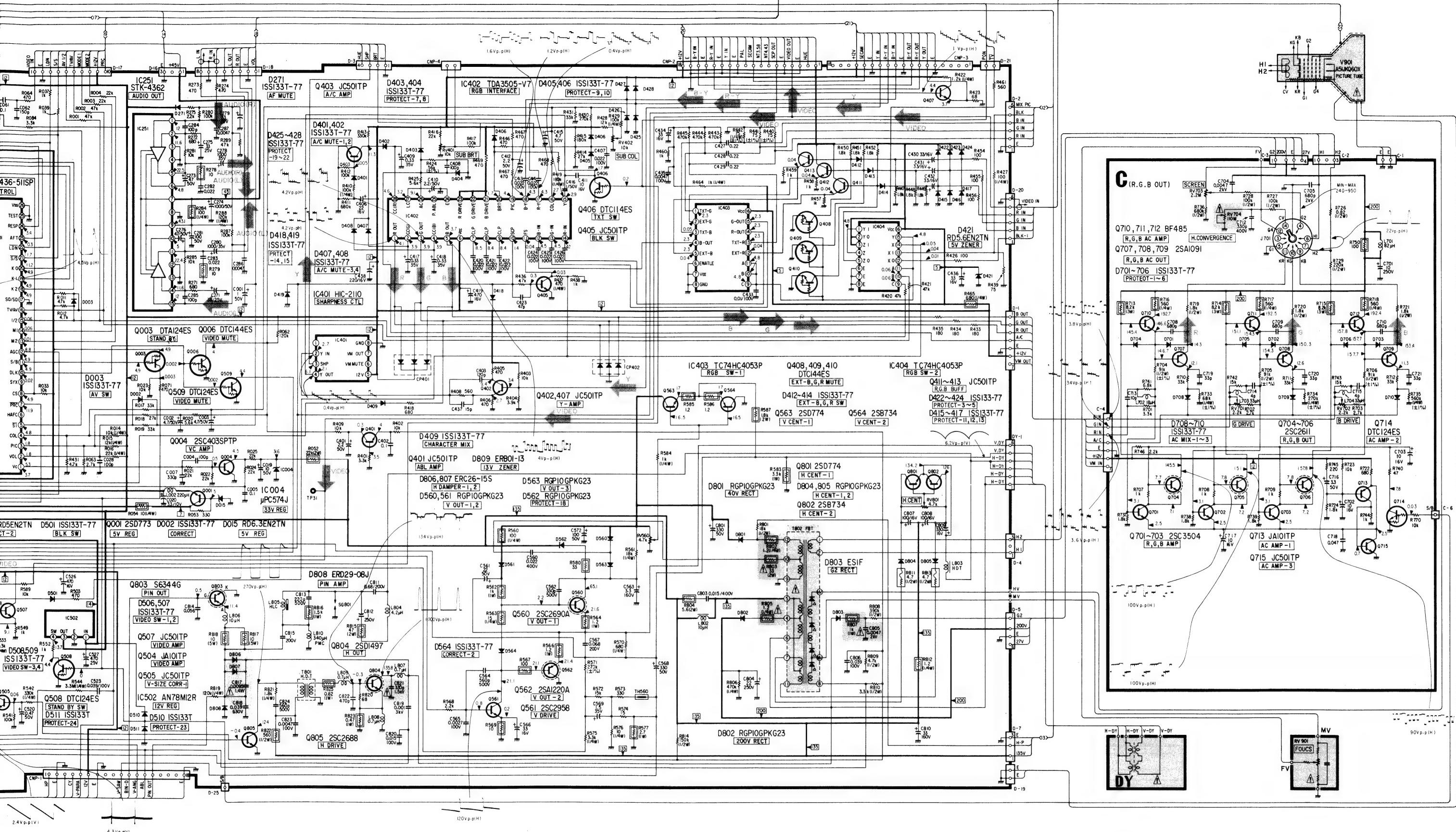
A (BAND SW, VIF, QPT, SIF, ID SIF)

# KV-21XRD/21XRTD/RM-664









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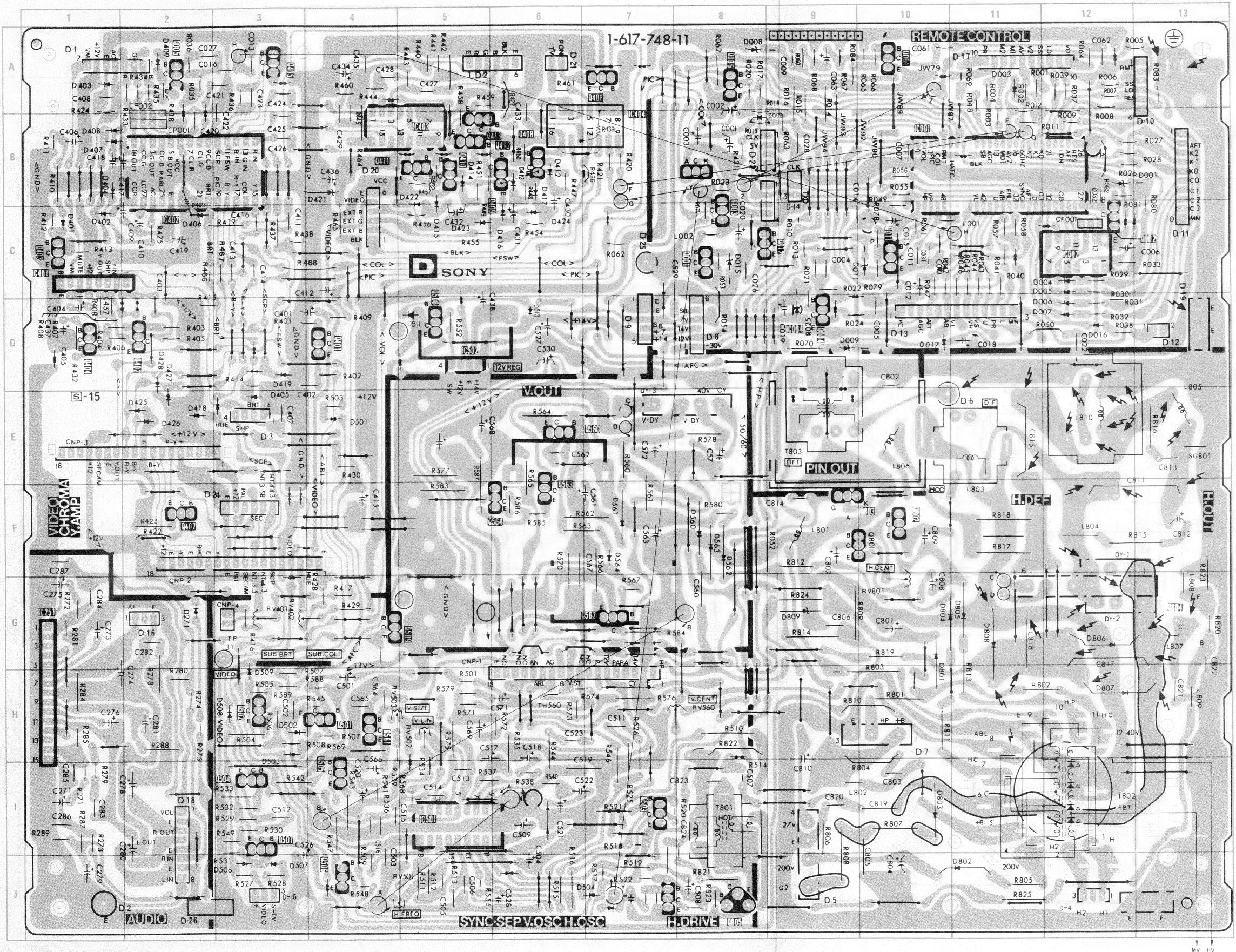
1

## MOUNTING DIAGRAMS

Note: All mounting diagrams are viewed from conductor side.

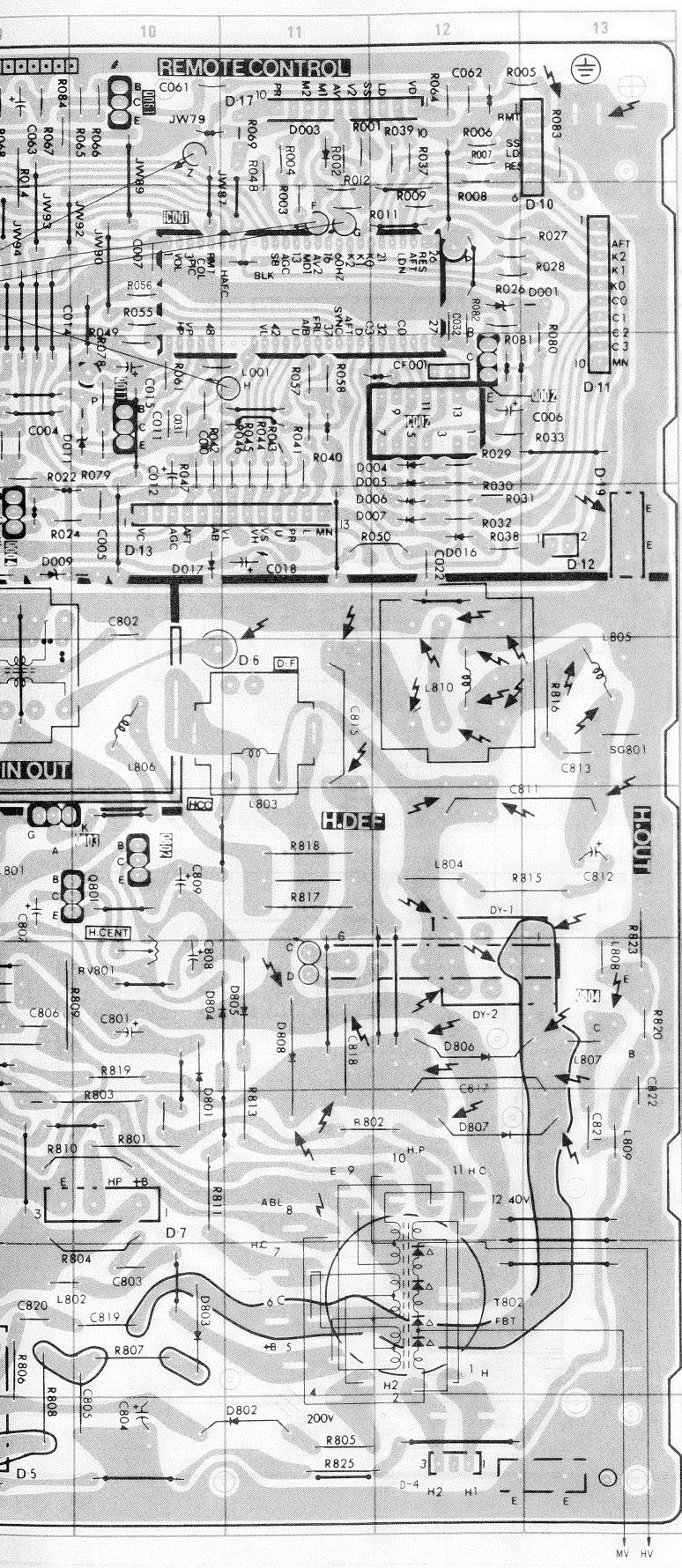
**D**

[CONTROL, MEMORY, R.G.B. INTERFACE]  
[AUDIO OUT, H/V DRIVE, PIN OUT]



**D**

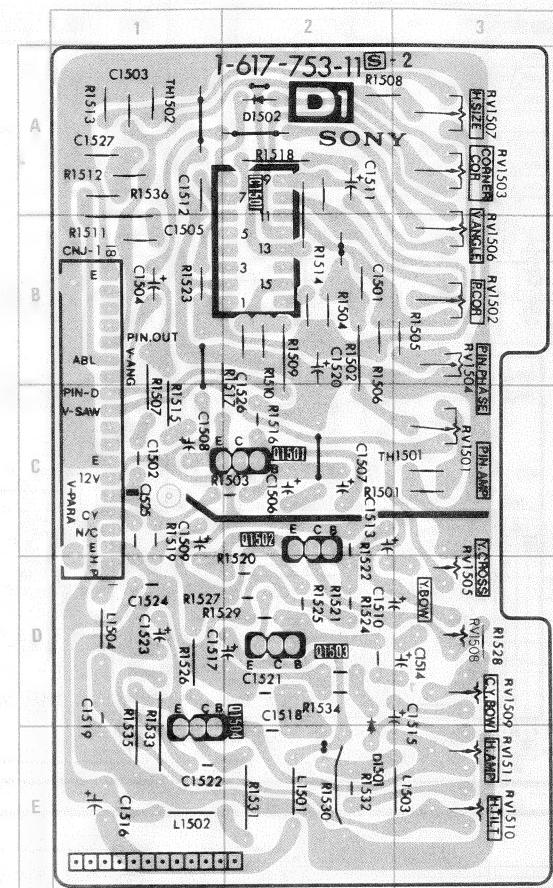
CAPACITOR	CONNECTOR
C001	CNPN1
C002	CNPN2
C003	CNPN3
C004	CNPN4
C005	D1
	D2
	D3
	D4
	D5
	D6
	D7
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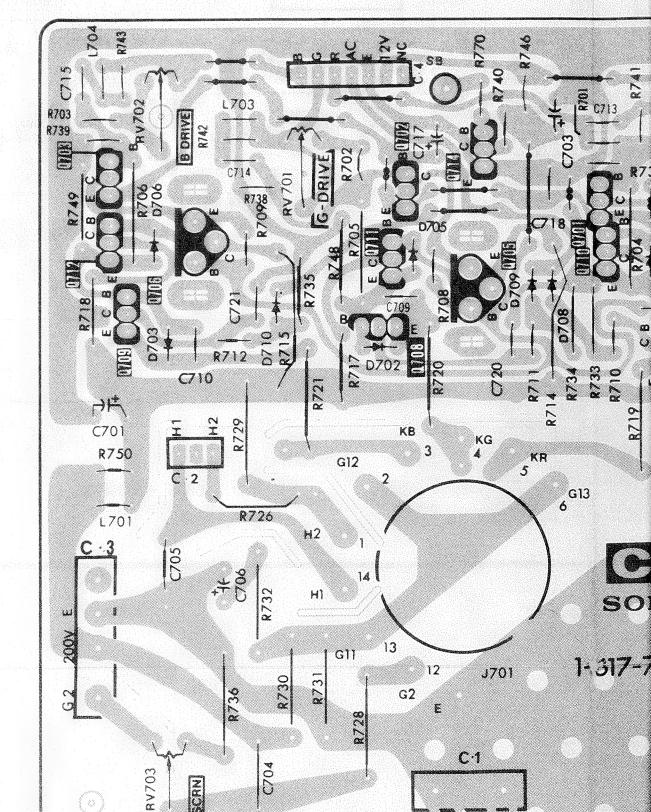
D1

[PIN AMP]



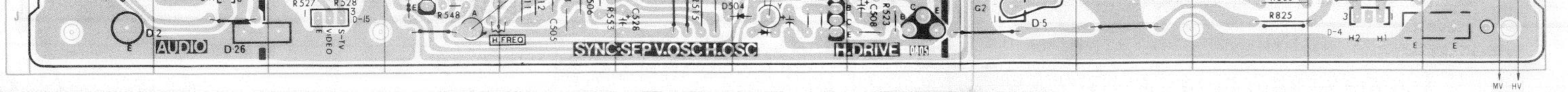
6

[R.G.B OUT]



# KV-21XRD/21XRTD/RM-664

410	B-5	R053	G-8	R437	C-3	R562	F-6
411	B-5	R054	D-8	R438	C-3	R563	E-6
412	B-5	R055	B-10	R440	A-5	R564	E-6
413	H-4	R056	B-10	R441	A-5	R565	F-7
501	I-3	R057	C-11	R442	A-5	R566	
502	I-7						
503							
504	I-3	R058	C-11	R443	A-5	R567	G-7
505	I-4	R060	A-9	R444	A-4	R568	I-5
506	C-10	R061	C-10	R445	B-4	R569	H-4
507	I-3	R062	C-7	R447	B-6	R570	F-6
508	D-5	R063	B-9	R448	B-6	R571	H-5
509	G-4	R064	A-12	R449	B-5	R572	H-6
510	E-6	R065	A-10	R450	B-6	R573	H-6
511	H-4	R066	A-10	R451	B-5	R574	H-7
512	A-9	R067	A-9	R452	B-5	R575	H-6
513	A-9	R068	R454			R576	H-7
514							
515	G-7	R069	A-11	R455	C-6	R577	E-5
516	F-6	R070	D-9	R456	C-5	R578	E-8
517	E-10	R071	C-8	R457	B-5	R579	H-5
518	F-10	R072	C-10	R458	B-5	R580	F-8
519	F-10	R073	C-10	R459	A-5	R583	F-5
520	G-9	R080	C-13	R460	A-4	R584	G-7
521	J-8	R081	B-12	R461	A-6	R585	F-6
522	R082	B-12	R464	B-4	R586	F-6	
523	R083	A-13	R465	C-4	R587	E-5	
524	R084	A-9	R468	C-4	R588	H-4	
525			R501	H-5			
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C429	D-4	CR01	S-12
C430	C-6		
C431	H-1		
C432	E-4		
C433	B-6		

D426	E-2		
D427	E-2		
D428	D-2		
D501	E-4		
D502	H-3		

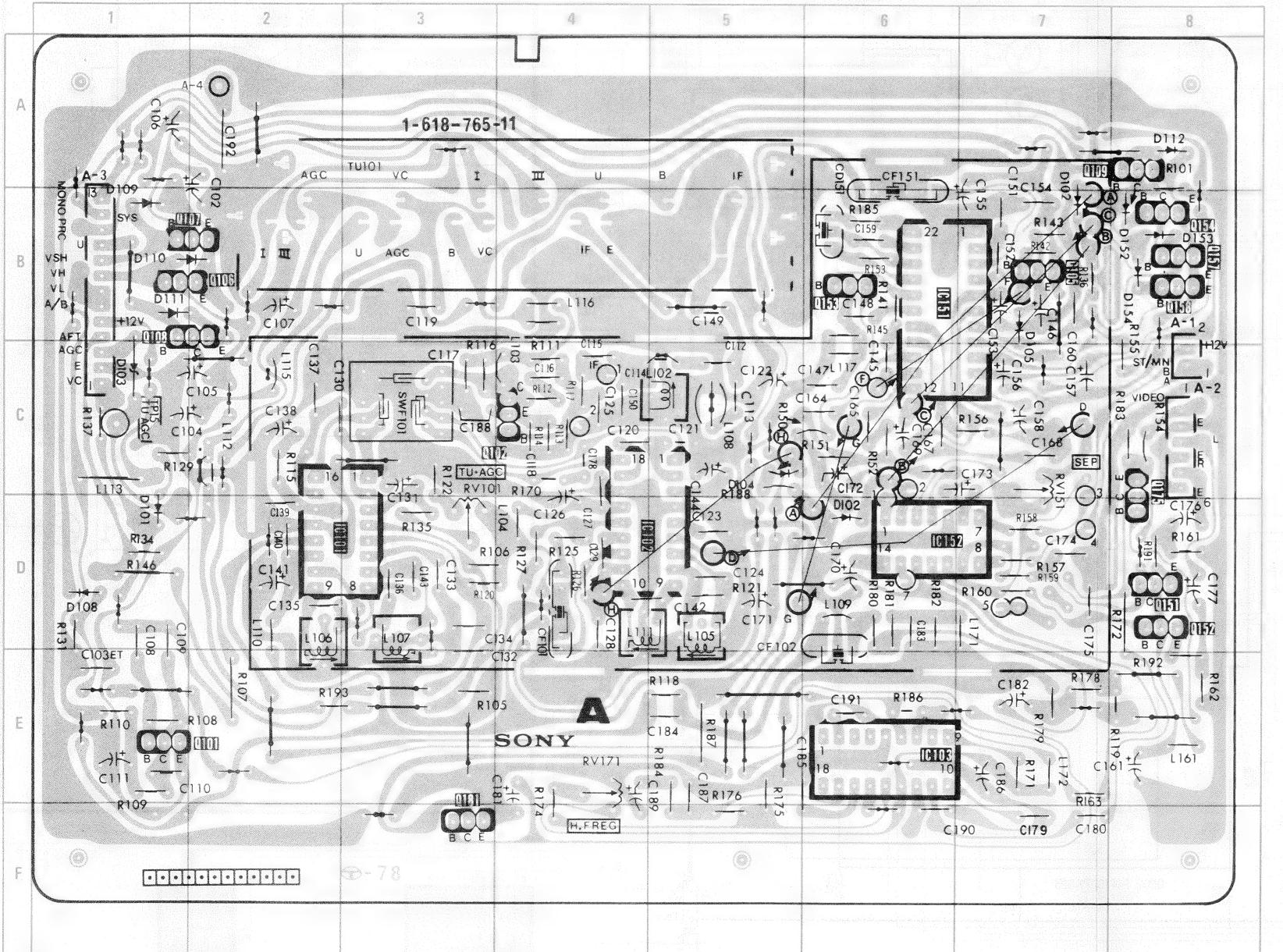
E-2	A-7
E-2	F-2
D-2	G-2
E-4	B-6
H-3	B-6

**SUB BRIGHT**
**IC402 = B-2, RV401 = G-3**

1. Receive a dot signal.
2. PICTURE control ..... normal
- COLOR control ..... normal
- BRIGHTNESS control ..... center click
3. Connect an digital multimeter at pin ⑩ of IC402.
4. Adjust RV401 to 1.7V dc.

**A**

[BAND SW, VIF, QPT, SIF, ID SIF]


**TU AGC**
**RV101 = D-3**

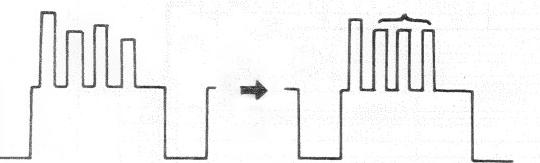
1. Tune in an off-air signal.
2. Adjust RV101 so that snow-noise and cross-modulation just disappear from picture.

**SEPARATION ADJUSTMENT**
**IC152 = D-6  
RV151 = C-7**

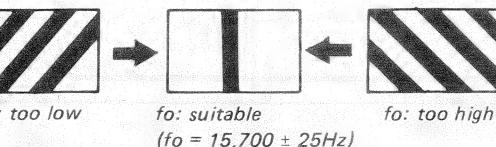
1. Receive a stereo signal (L-CH 1kHz, R-CH 400Hz).
2. Confirm the stereo indicator.
3. Confirm the output 1kHz signal at pin ⑨ of IC152.
4. Adjust RV151 so that minimum 1kHz signal at pin ⑩ of IC152.

**SUB COLOR ADJUSTMENT**
**IC402 = B-2, RV402 = G-3**

1. Receive a color bar signal.
2. PICTURE control ..... normal
- COLOR control ..... normal
- BRIGHTNESS control ..... center click
3. Connect an oscilloscope at pin ⑯ of IC402.
4. Adjust RV402 so that same level as shown.


**H FREQUENCY**
**IC501 = I-5, RV501 = J-5**

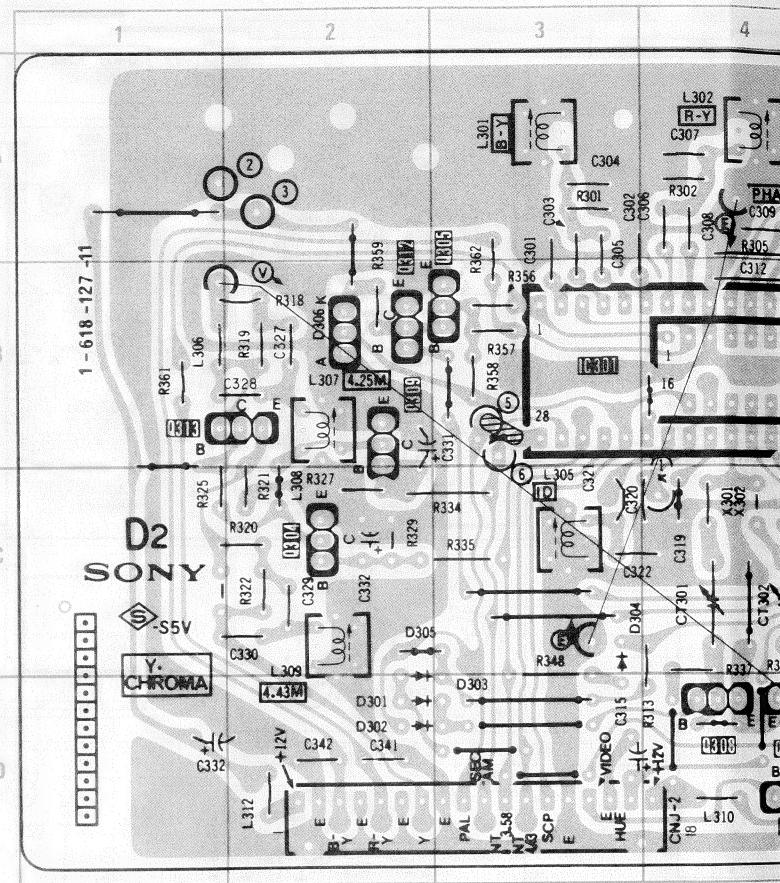
1. Connect a jumper to IC501 pin ⑤ and the ground.
2. Adjust H FREQUENCY VR (RV501) for stable picture.



3. After completing this adjustment, disconnect a jumper wire from D board.

**D2**

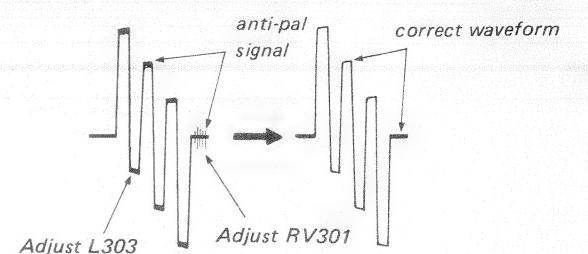
[CHROMA DECODER]


**REF OSC**
**IC301 = B-3, CT301 = C-4**

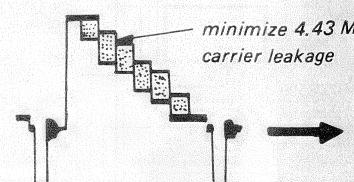
1. Receive a color bar signal.
2. Ground pin ⑪ of IC301 and turn color killer OFF.
3. Adjust CT301 so that the movement of picture on the CRT becomes the slowest.

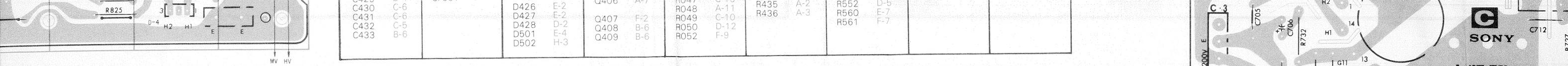
**1H DELAY LINE**
**IC301 = B-3, L303 = A-5, RV301 = A-5**

1. Receive a color bar signal.
2. Observe the pin ③ IC301 waveform on the oscilloscope, and adjust so that the chroma component becomes minimum with L303.
3. Get tracking with both L303 and RV301 as shown.


**Y TRAP**
**CNJ-2 = D-3, L309**

1. Receive a color bar signal.
2. Observe the pin ⑦ CNJ-2 waveform and adjust L309 for minimum 4.43 MHz carrier leakage.



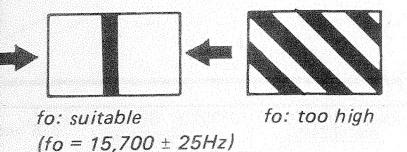


**C**  
SONY

1-317-751-11

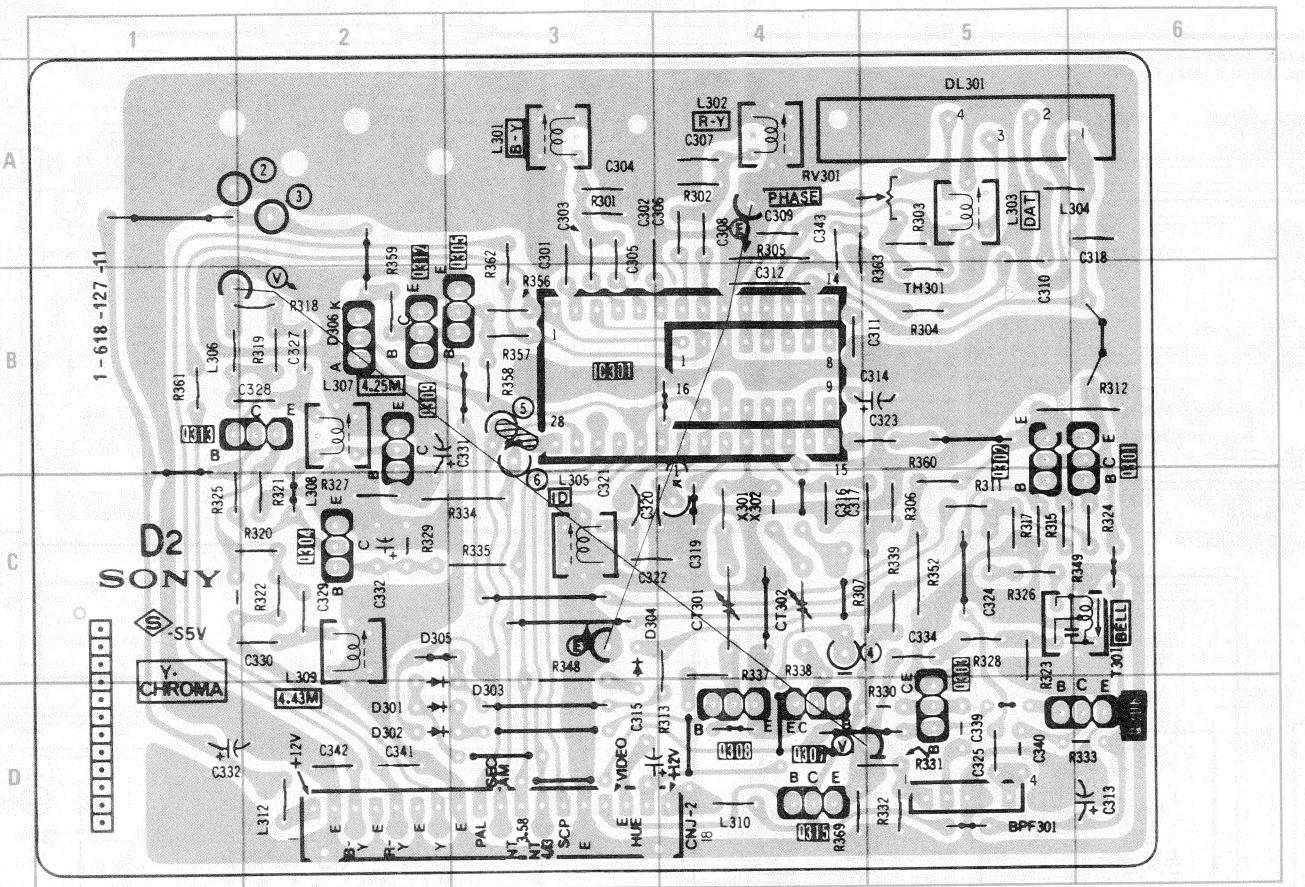
IC501 = I-5, RV501 = J-5

Refer to IC501 pin ⑤ and the ground.  
ADJUST FREQUENCY VR (RV501) for stable picture.



## D2

[CHROMA DECODER]



REF OSC

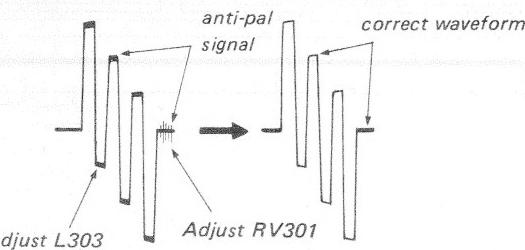
IC301 = B-3, CT301 = C-4

1. Receive a color bar signal.
2. Ground pin ⑪ of IC301 and turn color killer OFF.
3. Adjust CT301 so that the movement of picture on the CRT becomes the slowest.

1H DELAY LINE

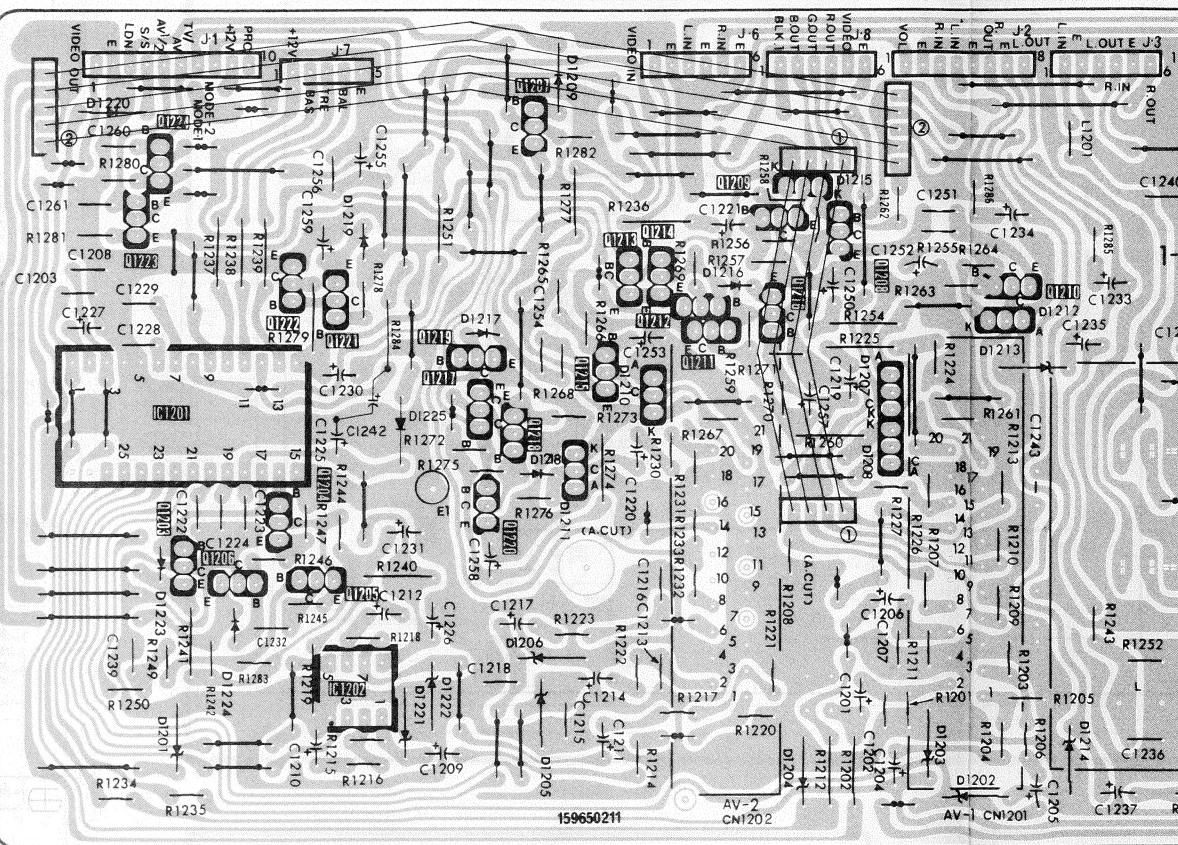
IC301 = B-3, L303 = A-5, RV301 = A-5

1. Receive a color bar signal.
2. Observe the pin ③ IC301 waveform on the oscilloscope, and adjust so that the chroma component becomes minimum with L303.
3. Get tracking with both L303 and RV301 as shown.



## J1

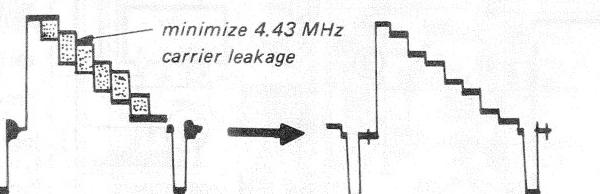
[INTERFACE, TV/AV SW]



Y TRAP

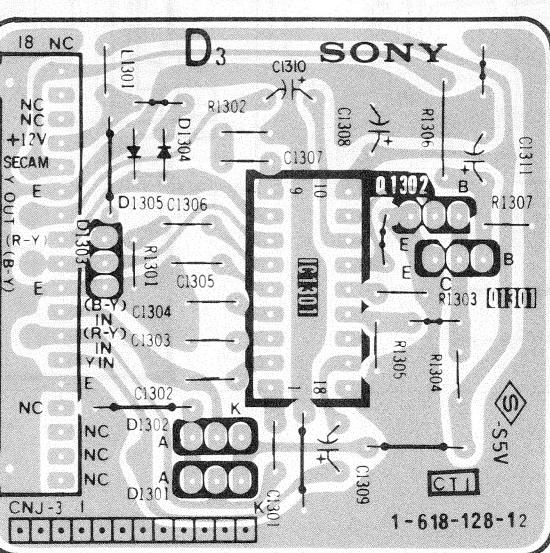
CNJ-2 = D-3, L309 = C-2

1. Receive a color bar signal.
2. Observe the pin ⑦ CNJ-2 waveform on the oscilloscope and adjust L309 for minimum 4.43MHz component.



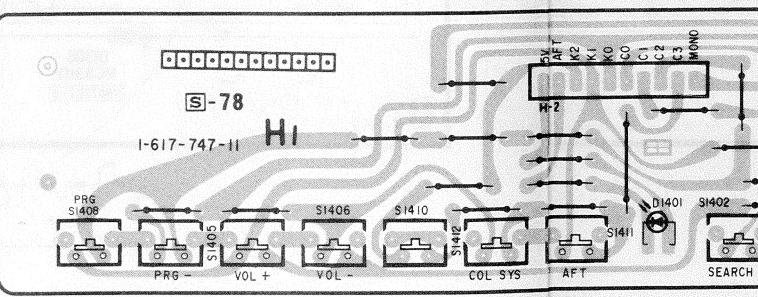
## D3

[CTI]

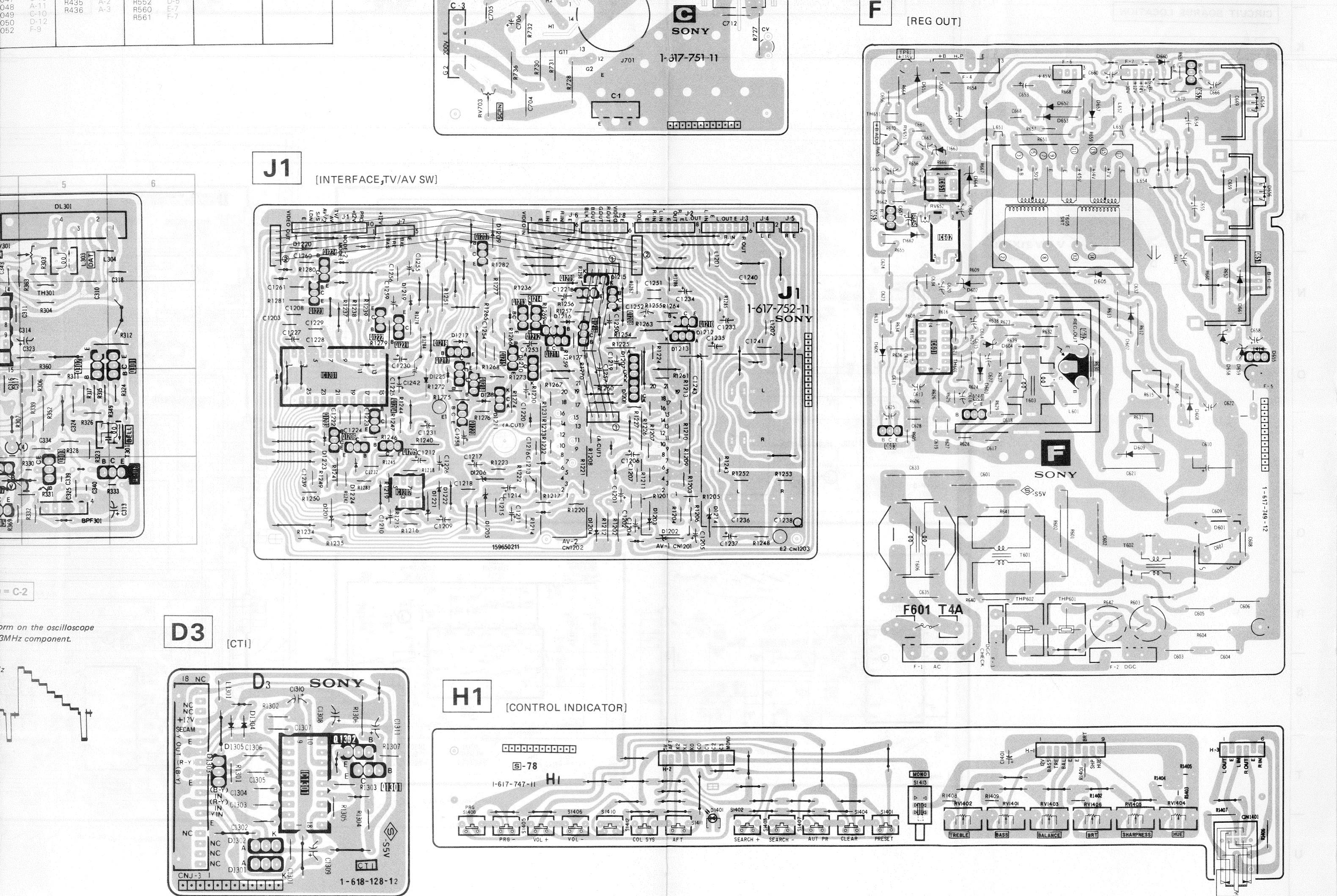


## H1

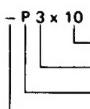
[CONTROL INDICATOR]



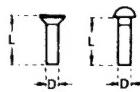
A-11 R435 A-Z  
 049 R436 A-3  
 C-10 R552 E-5  
 D-12 R560 E-7  
 F-9 R561 F-9  
 050  
 052



### HARDWARE NOMENCLATURE

Screw:   
*L:* Length in mm  
*D:* Diameter in mm  
Type of head  
Indicated slotted-head only.

Unless otherwise indicated, it means cross-recessed head (Phillips type).



Nut, Washer, Retaining ring:

  
*N*  
Diameter of usable screw or shaft  
Reference designation

Reference Designation	Shape	Description	Remarks
<b>SCREWS</b>			
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		brazier-head screw	

Reference Designation	Shape	Description	Remarks
<b>SELF-TAPPING SCREWS</b>			
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self-tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
<b>SET SCREWS</b>			
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
<b>NUT</b>			
N		nut	
<b>WASHERS</b>			
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
<b>RETAINING RINGS</b>			
E		retaining ring	
G		grip-type retaining ring	

9-963-592-01

**Sony Corporation**

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